

Dunton Technologies

Bridge Street North, Smethwick

Phase 1 and 2 Geo-Environmental Assessment

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GENERAL NOTES

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Signature

A handwritten signature in black ink, appearing to be 'Tim Cawood', is written above a horizontal line.

Date 21 October 2022

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- 10143-002 Borehole Location Plan

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- Appendix B Groundsure Report
- Appendix C Photographs
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- Appendix E Borehole Logs
- Appendix F Interim Laboratory Results
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1 INTRODUCTION

TJC Environmental Ltd (TJCE) was commissioned by Dunton Technologies to undertake a Phase 1 and 2 Geo-Environmental Assessment for Bridge Street North, Smethwick.

1.1 Aim

The aim of the work is to provide the client with an initial assessment of the potential risks from contaminated land and geotechnical constraints in the context of future use as a waste treatment hub.

1.2 Development proposals

The site is intended to be operated as a waste treatment hub for contaminated soils. It will operate under an Environmental Permit.

1.3 Scope

The scope of this report has been designed in general accordance with the Environment Agency Land Condition Risk Management (LCRM) guidance (EA, 2019) and BS 10175:2011+A2:2017 (BSI, 2011 and 2017).

The scope of works included the following:

- Site walkover inspection
- Site history and current land use
- Geology, hydrogeology and hydrology
- Environmental setting
- Development of initial Conceptual Site Model and Preliminary Risk Assessment
- Geotechnical Assessment
- Recommendations for further work (if necessary).

1.4 Limitations

The comments given in this report and the opinions expressed are based on information gathered from the desk based searches that are discussed and referenced within the report, as well as the intrusive ground investigations undertaken. However, there may be conditions pertaining to the site that have not been disclosed and therefore could not be taken into account. In addition, the ground conditions at the site could vary between exploratory locations.

The identification of asbestos and asbestos containing materials is outside the scope of this report. Therefore, detailed comments with regards to asbestos have been omitted from this report.

The identification of invasive species is outside the scope of this report. Therefore, detailed comments with regards to such species have been omitted from this report.

2 SITE DESCRIPTION AND HISTORY

2.1 Site location

The site is located on Bridge Street North, Smethwick, Birmingham, B66 2AY. The approximate centre of the site is at National Grid Reference 402544 288949. The site location is shown on Drawing 10143-001.

2.2 Site description

A site walkover inspection was undertaken on 24th August 2022. The site extends to approximately 1.21ha and is broadly flat. Natural ground levels at the site vary between around 143.5m to 144.6m AOD. The site is bounded by canals to the south and north west. The canal to the south is at a similar level to the site, while the canal to the north is approximately 6m lower than the site. The central 1/3rd of the site's north western boundary is supported with a brick retaining wall. The northern eastern and south western sections of the boundary have steep slopes down to the canal.

There is a single large building on the site, located in the east of the site. This comprises a main warehouse area approximately 88m x 23m. A collection of extensions to the main building are located in the south east corner of the site. These included further warehouse areas and disused offices. The offices had suffered some fire damage and the roof was largely missing.

The external areas of the site are almost entirely covered with concrete slabs. In the northwest corner of the site they were mostly covered with crushed brick. A small stockpile of approximately 300m³ crushed brick was also located in this area. The area of the site to the west of the building is long and narrow, measuring roughly 220m in length and 14 to 28m wide. Several empty barrels and two IBCs were stored in this area. All appeared to be clean and empty.

Selected photographs from the site walkover inspection are included as Appendix C.

2.3 History of site and surrounding area

2.3.1 Historic Mapping

The history of the site and surrounding area have been assessed through review of historic maps obtained as part of the Groundsure Report. These are included as Appendix A.

The earliest available mapping (1887) shows the site as fully developed. The site is occupied by several buildings of the Anchor Iron Works. Bridge Street Wharf and a canal basin are located in the west of the site. Foundries, wharves and a rivet works are located to the south of the site.

By 1938, the buildings in the western half of the site were no longer present. The buildings in the east had been replaced by a single large building labelled as a drop forging works. The canal basin previously noted in the west of the site can no longer be seen.

Between 1938 and 1956 the drop forging works was extended to the west and new buildings were constructed on the north west of the site, including a canteen.

The mapping from 1974-76 shows that the works on site had been extended further again to the west, reaching over half way to the eastern end of the site. A travelling crane is now shown on the eastern 1/3rd of the site.

By 1983, a central section of the works building was demolished.

The western building on the site was demolished between 2013 and 2016. The site appears disused after 2016.

The most recent occupiers of the site were DBM Machinery Installations Ltd and Birmingham Plastic Recycling.

The fire damage noted during the site walkover in the office building in the south eastern corner of the site appears to have happened around 2019.

It is understood that the buildings in the north east of the site were demolished in early 2022.

3 GEOLOGY, HYDROGEOLOGY AND HYDROLOGY

3.1 Geology

The geology of the site and surrounding area have been assessed through reference to the BGS Geology of Britain Viewer and published geological mapping down to 1:10,000 scale. Information has also been drawn from the Groundsure Report obtained for the site.

Table 1: Published geology at the site

Geological unit	Description
Worked Ground: Void	The area of the canal to the immediate north of the site is marked as a void where materials from which materials were previously excavated.
Superficial: Glaciofluvial Deposits	Sand and gravel, locally with lenses of silt, clay or organic material.
Bedrock: Kidderminster Formation	Pebbly (gravelly) sandstone.
Source: BGS Geindex online mapping tool (https://mapapps2.bgs.ac.uk/geoindex/home.html)	

3.1.1 Faults

The nearest geological fault to the site is located 346m to the east.

3.1.2 Geological Hazards

The Groundsure Report gives risk ratings to a range of potential geological hazards at the site. These are listed in Table 2.

Table 2: Geological hazards

Geological Hazard	Rating
Shrink swell clays	Very low
Running sands	Low
Compressible deposits	Moderate
Collapsible deposits	Negligible
Landslides	Very low
Ground dissolution of soluble rocks	Negligible

3.1.3 BGS Borehole Logs

The nearest relevant BGS log to the site is located 85m to the east of the site. This recorded the following strata:

0 – 1.22m:	Made Ground
1.22 – 3.96m:	Sand and gravel
3.96m – 5.12m:	Red sandy marl (clay)
5.12 – >7.01m:	Sand and gravel

3.1.4 Coal Mining

The site is within the South Staffordshire coal mining reporting area, close to its southern edge. Reference to the Coal Authority Interactive Map indicates that there are no recorded underground workings at the site. In addition, there is no shallow coal at the site. Therefore, the site is considered to be at low risk from coal mining related hazards.

Further assessment may be required in the event that the site is substantially redeveloped (eg. for housing) in the future.

3.1.5 Quarrying

There are no known quarries in the vicinity of the site.

3.2 Hydrogeology

3.2.1 Vulnerability of groundwater resources

The superficial deposits underlying the site (Glaciofluvial Deposits) are designated as a Secondary A Aquifer. The Environment Agency describes these as '*Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers*'.

The bedrock underlying the site (sandstone of the Kidderminster Formation) is designated as a Principal Aquifer. The Environment Agency describes these as '*Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers*'.

The site is within an area of medium groundwater vulnerability. These are areas which have some or limited protection from pollution.

The site is within a groundwater Source Protection Zone (SPZ) 3 (Total Catchment).

3.2.2 Licensed groundwater abstractions

There are no active groundwater abstractions within 1km of the site.

3.3 Hydrology

3.3.1 Surface watercourses

The nearest surface watercourse to the site is the Birmingham Canal, which bounds the site to the south. This was given an overall quality rating of moderate when last assessed in 2019.

3.3.2 Surface water abstractions

There are no active surface water abstractions within 1km of the site.

3.4 Flood Risk

3.4.1 River and coastal flooding

The vast majority of the site is within Flood Zone 1. This means that it has a low probability of flooding from rivers and the sea.

3.4.2 Surface water flooding

Surface water flooding is caused by extreme rainfall events. The Groundsure report indicates that the site is generally at low risk from surface water flooding.

3.4.3 Groundwater flooding

Flooding from groundwater is caused by unusually high groundwater levels, when the water table rises above the ground surface or into basements. The Groundsure report indicates that the risk of groundwater flooding at the site is moderate.

3.5 Radon

The Groundsure report indicates that the site is within an area where less than 1% of properties are affected by radon. The report also states that no radon protection measures are required.

4 ENVIRONMENTAL INFORMATION & RECORDS

The following environmental information and records have been obtained from the Groundsure report obtained for the site. This is included as Appendix B. Only information relevant to the development of the site is referred to in this report.

4.1 Industrial Land Use

Former uses of the site include iron works, wharves, machinery manufacture and plastic recycling.

The surrounding area also has a long industrial history, with several metal and glass works having been present over the years. Two vehicle scrap yards are currently in operation close to the eastern and southern site boundaries. A vehicle garage is located approximately 30m to the south east of the site.

4.2 Licensed Waste Sites

The nearest licensed waste site to the subject site is a vehicle scrap yard. It is operated by MK Salvage under permit EA/EPR/YP3492FG/A001.

Another licensed waste site is located 69m south of the subject site. This is a mixed metal recycling site. It is operated by Jones of Smethwick under permit EA/EPR/DP3296FN/A001.

4.3 Licensed industrial activities (Part A(1))

There are five active Part A(1) registered sites within 500m of the subject site. The nearest of these is located 218m to the north and involves electrolytic/chemical treatment of metals and plastics. It is operated by Birmingham Plating Company under permit number BN1917IW.

4.4 Licensed pollutant release (Part A(2)/B)

There are two active Part B registered sites within 500m of the subject site. The nearest of these is located 219m to the north east and is for a boiler and furnace. No enforcements are recorded.

4.5 Discharge Consents

The nearest recorded discharge consent to the site is located 225m to the south east. This is for storm sewage overflow from a water company.

4.6 Pollution Incidents

There are three recorded pollution incidents in relation to the site itself. These all occurred in 2001 and 2002 and involved minor impacts to land and water.

A further 20no pollution incidents were recorded within 250m of the site. All of these were registered as minor or no impact.

4.7 Listed Buildings / Scheduled Ancient Monuments

An aqueduct is located 25m to the north west of the site. This is a Grade II* listed building. It is also listed as a Scheduled Ancient Monument.

4.8 Conservation Areas

The western half of the site is located within the Smethwick Summit Galton Valley conservation area.

5 PRELIMINARY ENVIRONMENTAL ASSESSMENT

5.1 Summary of potential contaminant sources

Potential sources and contaminants of concern are summarised in Table 3.

Table 3: Potential sources and types of contamination

Potential sources	Contaminants of concern
On-site historic	
Iron works, wharves, machinery manufacture and plastic recycling.	Wide range of potential contaminants including metals, asbestos, PAHs and petroleum hydrocarbons.
Infilled canal basin.	Potential for ground gas generation if basin was infilled with degradable material.

5.2 Plausible sensitive receptors

Sensitive receptors at this site include:

- site workers/visitors
- groundwater beneath the site
- canals to south and north west of site

Please note that construction workers have not been identified in the conceptual model as receptors because risks to this group are considered to be addressed under Health and Safety legislation.

5.3 Summary of plausible pathways

The plausible pathways are summarised below:

- direct contact with soils
- ingestion of soil dust
- vertical and lateral migration including leaching
- inhalation of dust and vapours.

5.4 Preliminary Risk Assessment (PRA)

The outline conceptual model is summarised in Table 4.

Table 4: Preliminary risk estimation for potentially complete pollutant linkages

Potential contaminant source	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification
Asbestos	Site workers and visitors	Inhalation	Low	Mild	Low – There is no evidence that asbestos is present in site soils, but the possibility cannot be discounted at this stage.
Metals, PAHs and petroleum hydrocarbons	Site workers and visitors	Direct contact with soils, ingestion of soil dust, inhalation of soil dust.	Likely	Mild	Low to Moderate – Site has long history of industrial land use. However, the proposed waste treatment facility will maintain the concrete surfacing across the site so the potential for contact with any contaminated soils beneath is limited.
	Groundwater (Secondary A Aquifer, SPZ 3)	Leaching, lateral and vertical migration	Likely	Mild	Low to Moderate – The groundwater beneath the site is considered to be of low to moderate sensitivity. The potential for contamination to leach from the site to the aquifer is also considered to be low to moderate.
	Canals	Leaching, lateral and vertical migration	Low	Mild	Low – Canals are usually lined to prevent loss of water. This is likely to limit inward migration of groundwater. In addition, some attenuation in groundwater of any contaminants is likely.
Ground gases	Site workers and visitors, property	Advection and diffusion through permeable strata	Low	Mild	Low – The infilled canal basin within this site was relatively small (approximately 50m x 6.5m). In addition it was infilled at least 84 years ago and any gas generation is likely to have ceased.

6 GROUND INVESTIGATION WORKS

6.1 Introduction and Scope

TJCE designed an intrusive ground investigation to obtain details of the near surface geology, obtain samples for laboratory analysis and undertake in-situ testing.

The following scope of works was carried out:

- 8no window sample boreholes drilled to between 0.80m and 5.45m below existing ground level (bgl).
- Screening of all exploratory locations for Unexploded Ordnance (UXO) by qualified engineer.
- In-situ testing including Standard Penetration Tests (SPTs).
- Obtain samples for chemical and geotechnical laboratory analysis.
- Survey all exploratory locations using RTK GPS equipment.
- 4no rounds of ground gas monitoring (1no completed to date).
- 1no round of groundwater monitoring (none completed to date).

Drawing 10143-002 shows the exploratory hole locations. The engineer's logs for the exploratory holes are enclosed as Appendix E.

6.2 Field Work

The ground investigation works were carried out by TJCE on 5th to 7th October 2022.

Due to the presence of a concrete slab at 0.75m bgl in WS104, this location was abandoned and a shallow gas monitoring pipe was installed.

All locations were surveyed using RTK GPS equipment. Due to the location of WS107 and WS108 within the existing warehouse building on the site, these were located by measurement from the warehouse walls and conventional levelling.

6.2.1 Recorded Geology

The strata encountered are summarised in Table 5.

Table 5: Strata Encountered

Geological unit	Top (mbgl)	Base (mbgl)	Thickness (m)	Description (generalised)
Made Ground	0	>0.80 to 4.25	>0.80 to 4.25	<p>Concrete slabs present in every location.</p> <p>Dark brown to black very gravelly SAND with frequent cobbles of brick. Gravel is fine to coarse angular to rounded ash, clinker, brick, concrete and quartzite. Cobbles are angular brick.</p> <p>Very soft to soft brown slightly gravelly very sandy CLAY. Gravel is fine to coarse subrounded to rounded quartzite.</p>
Glaciofluvial Deposits	1.70 to 4.25	>1.87 to >5.45	>0.17 to >3.30	<p>Firm to stiff orange brown slightly sandy very gravelly CLAY. Gravel is coarse subangular to rounded quartzite.</p> <p>Brown to orange brown very gravelly slightly to very clayey SAND. Gravel is fine to coarse rounded quartzite.</p>

The exploratory hole logs are included as Appendix E.

6.2.2 Groundwater

No groundwater was encountered in any of the eight exploratory holes during drilling.

6.2.3 Visual / Olfactory Observations

A slight to moderate hydrocarbon odour and black staining were noted in WS108 from 1.30m to the base at 3.07m bgl.

6.3 Laboratory Analysis

The following laboratory analysis was scheduled at a UKAS and MCERTS accredited lab:

- 4no Moisture Content
- 4no Atterberg Limits
- 14no Water Soluble Sulphate
- 14no Total Sulphate
- 14no Metals (CLEA)
- 14no Water Soluble Boron
- 14no PAH-16
- 14no TPHCWG
- 14no Total Organic Carbon (TOC)
- 14no Asbestos Screen and Identification

At the time of writing, only partial results were available due to delays at the lab. No geotechnical results were available and the TPHCWG and asbestos results were not available. This report will be updated when the full results become available.

The interim laboratory certificates are included as Appendix F.

Table 6: Summary of Soils Analysis (metals)

Contaminant	No. Samples	Min (mg/kg)	Max (mg/kg)	Mean* (mg/kg)
Arsenic	14	5.5	150	27.3
Barium	14	33	1900	273.1
Beryllium	14	0.39	4.9	1.5
Boron (water soluble)	14	0.5	12	2.3
Cadmium	14	<0.2	1.7	0.3
Chromium	14	11	150	43.6
Copper	14	12	690	149.9
Lead	14	12	620	126.1
Mercury	14	<0.3	<0.3	<0.3
Nickel	14	9	160	45.8
Selenium	14	<1.0	<1.0	<1.0
Vanadium	14	18	370	91.7
Zinc	14	26	1400	218.9
* Non-detects treated as positive results				

Table 7 provides a summary of the soils results for PAHs and TPHCWG.

Table 7: Summary of Soils Analysis (PAHs)

Contaminant	No. Samples	Min (mg/kg)	Max (mg/kg)	Mean* (mg/kg)
Naphthalene	14	<0.05	0.46	0.12
Acenaphthylene	14	<0.05	1.1	0.13
Acenaphthene	14	<0.05	0.35	0.07
Fluorene	14	<0.05	0.99	0.13
Phenanthrene	14	<0.05	7.9	1.45
Anthracene	14	<0.05	2.6	0.39
Fluoranthene	14	<0.05	13	2.03
Pyrene	14	<0.05	11	1.72
Benzo(a)anthracene	14	<0.05	9.1	1.29
Chrysene	14	<0.05	7.3	1.13
Benzo(b)fluoranthene	14	<0.05	7.3	1.18
Benzo(k)fluoranthene	14	<0.05	3.9	0.61
Benzo(a)pyrene	14	<0.05	7	1.03
Indeno(1,2,3-cd)pyrene	14	<0.05	2.7	0.49
Dibenz(a,h)anthracene	14	<0.05	0.89	0.15
Benzo(ghi)perylene	14	<0.05	2.7	0.52
Naphthalene	14	<0.05	0.46	0.12
Total PAH 16	14	<0.80	77.5	12.28

* Non-detects treated as positive results

6.4 Gas and Groundwater Monitoring

To date, one round of ground gas monitoring has been completed on 14/10/22. The full results are included as Appendix G and are summarised in Table 8.

Table 8: Summary of Gas and Groundwater Monitoring

Location	Flow (l/hr)	Methane (% v/v)	Carbon Dioxide (% v/v)	Oxygen (% v/v)	Water Level (m bgl)	Response Zone (m bgl)
WS101	0	<0.1	1.9	18.3	Dry	1.0 – 5.0
WS102	0	<0.1	7.3	10.7	4.35	1.0 – 5.0
WS103	0	<0.1	9.6	4.8	2.98	1.0 – 5.0
WS104	0	<0.1	1.9	15.1	Dry	0.5 – 1.0
WS105	0	<0.1	3.6	16.7	Dry	1.0 – 5.0
WS106	0	<0.1	5.6	10.3	4.97	1.0 – 5.0
WS107	0	<0.1	1.2	16.2	1.73	0.7 – 1.7
WS108	0	24.9	5.9	7.4	Dry	1.0 – 3.0

Notes

- 1) CIRA C665 recommends that increase to CS₂ is considered where methane concentrations exceed 1% and / or carbon dioxide exceeds 5%.
- 2) All results reported as steady readings.

7 GEO-ENVIRONMENTAL ASSESSMENT

7.1 Introduction

The site is proposed to be used as a waste soil treatment facility. The site is to remain largely unchanged in terms of the concrete surfacing across the site being retained.

7.2 Human Health Risk Assessment

The proposed use of the site is considered to fit the Commercial / Industrial generic end use scenario. Therefore, the analytical results have been assessed against the Commercial / Industrial Suitable For Use Level (S4ULs) (LQM/CIEH, 2015) Generic Assessment Criteria (GAC).

No exceedances of any of the Commercial / Industrial S4UL GACs were identified. A further screen was undertaken against the Residential with Plant Uptake S4ULs and while a small number of mild exceedances were identified, the mean soil concentrations of the respective contaminants were all below the Residential with Plant Uptake GACs. This is considered to provide a good general indication that the levels of contamination identified on the site are low.

7.3 Controlled Waters Risk Assessment

The site is located in an area of low to moderate sensitivity in terms of controlled waters; the underlying aquifer is classified Secondary A and the site is within Source Protection Zone 3 (Total Catchment) but there are no abstractions in the vicinity of the site and future new abstractions are unlikely. The canals near to the site are likely to be lined and therefore not in direct hydraulic continuity with groundwater at the site.

The soils results received to date are indicative of low levels of contamination that are considered unlikely to pose a significant risk to controlled waters.

7.4 Ground Gas Risk Assessment

The one round of monitoring undertaken to date has identified elevated concentrations of carbon dioxide (>5% v/v) in half of the monitoring locations and methane (>1% v/v) in one location. No positive or negative flows were identified.

The location with elevated methane was WS108. This was the only location in which visual / olfactory evidence of hydrocarbon contamination was identified. The elevated methane result in this location is considered likely to be as a result of either hydrocarbons causing erroneous methane readings in the gas analyser or breakdown of the hydrocarbons to form methane. Either way, the potential risks associated with this are low. This is because breakdown of hydrocarbons to form methane takes place very slowly and cannot produce sufficient volume of methane to pose a significant risk.

The elevated carbon dioxide is likely to be caused by breakdown of soil organic matter. In the absence of significant proportions of easily degradable / putrescible material this process takes place slowly and also cannot generate ground gases in significant volumes.

At this stage, the site is conservatively assessed as Characteristic Situation 2. This requires basic gas protection measures in new buildings. This assessment will be reviewed when the monitoring programme is complete.

7.5 Updated Conceptual Site Model and Risk Assessment

The preliminary risk assessment has been updated in light of the findings to date of the site investigation, monitoring and lab analysis. This is shown in Table 9.

Table 9: Updated risk estimation for potentially complete pollutant linkages

Potential contaminant source	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification
Asbestos	Site workers and visitors	Inhalation	Low	Mild	Low – There is no evidence that asbestos is present in site soils, but the possibility cannot be discounted at this stage.
Metals, PAHs and petroleum hydrocarbons	Site workers and visitors	Direct contact with soils, ingestion of soil dust, inhalation of soil dust.	Low	Mild	Low – Site has long history of industrial land use. However, the proposed waste treatment facility will maintain the concrete surfacing across the site so the potential for contact with any contaminated soils beneath is limited. Soils analysis indicates low levels of contamination.
	Groundwater (Secondary A Aquifer, SPZ 3)	Leaching, lateral and vertical migration	Low	Mild	Low – The groundwater beneath the site is considered to be of low to moderate sensitivity. The potential for contamination to leach from the site to the aquifer is also considered to be low to moderate. Soils analysis indicates low levels of contamination.
	Canals	Leaching, lateral and vertical migration	Low	Mild	Low – Canals are usually lined to prevent loss of water. This is likely to limit inward migration of groundwater. In addition, some attenuation in groundwater of any contaminants is likely. Soils analysis indicates low levels of contamination.
Ground gases	Site workers and visitors, property	Advection and diffusion through permeable strata	Low	Mild	Low – The infilled canal basin within this site was relatively small (approximately 50m x 6.5m). In addition it was infilled at least 84 years ago and any gas generation is likely to have ceased. Generally low concentrations of ground gases identified with zero flows.
Grey cells indicate no update possible due to outstanding lab results.					

8 GEOTECHNICAL ASSESSMENT

8.1 Introduction

The proposed development comprises a waste soil treatment facility. Although no redevelopment of the site is proposed, this section provides an assessment of the encountered ground conditions and geotechnical properties of the site for foundation and pavement design purposes.

8.2 Geotechnical Testing

The investigation undertaken by TJCE included both in-situ and laboratory geotechnical testing. This included:

- Standard Penetration Tests
- Moisture Content
- Atterberg Limits

8.3 Summary of Results

8.3.1 Made Ground

The geotechnical testing undertaken relating to the granular alluvial strata is summarised in Table 10.

Table 10: Made Ground Soil Parameters

Parameter	Number of Tests	Range		Average
		Min	Max	
Standard Penetration Tests (N)	15	1	50	11.4

Note: Results are uncorrected

8.3.2 Glaciofluvial Deposits (cohesive)

The geotechnical testing undertaken relating to the cohesive glaciofluvial strata is summarised in Table 11.

Table 11: Glaciofluvial Deposits (cohesive) Soil Parameters

Parameter	Number of Tests	Range		Average
		Min	Max	
Standard Penetration Tests (N)	6	2	44	18.3
Moisture Content (%)				
Liquid Limit (%)				
Plastic Limit (%)				
Plasticity Index (-)				
Modified Plasticity Index (-)				

Note: Results are uncorrected. Grey cells indicate outstanding results.

8.3.3 Glaciofluvial Deposits (Granular)

The geotechnical testing undertaken relating to the chalk is summarised in Table 12.

Table 12: Glaciofluvial Deposits (granular) Soil Parameters

Parameter	Number of Tests	Range		Average
		Min	Max	
Standard Penetration Test (N)	9	11	40	22.8

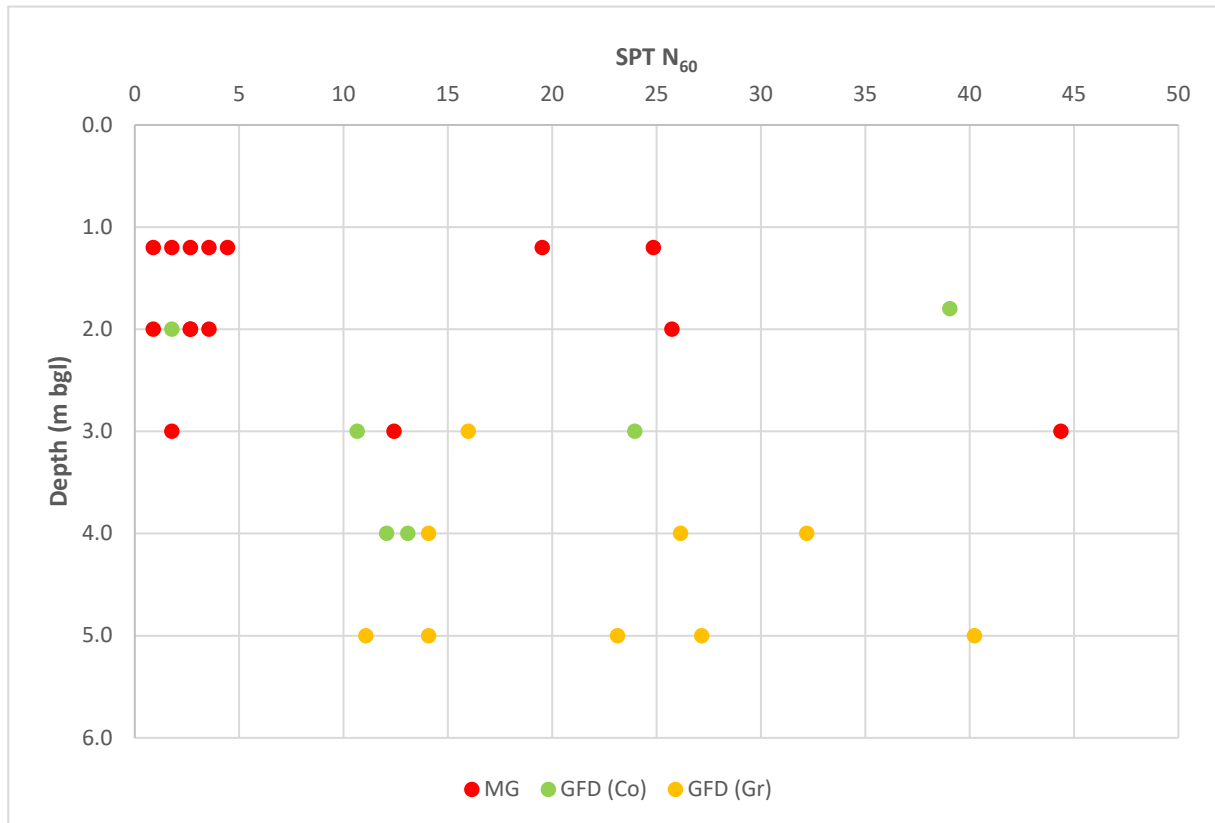
Note: Results are uncorrected

8.4 Corrections

8.4.1 SPT N₆₀

Corrections from field SPT N results to SPT N₆₀ have been undertaken in accordance with BS EN ISO 22476-3:2005 to account for hammer energy, rod length and borehole diameter. The calculation sheet is included as Appendix H and the SPT calibration certificate as Appendix I. These corrections produce a slight general decrease compared with the field SPT results. The results are shown in Figure 1.

Figure 1: SPT N₆₀ vs Depth



From Figure 1 it can be seen that the SPT N₆₀ values for the Made Ground were generally low, with a few higher results likely caused by obstructions. The results for the Glaciofluvial Deposits were generally higher.

8.5 Geotechnical Parameters

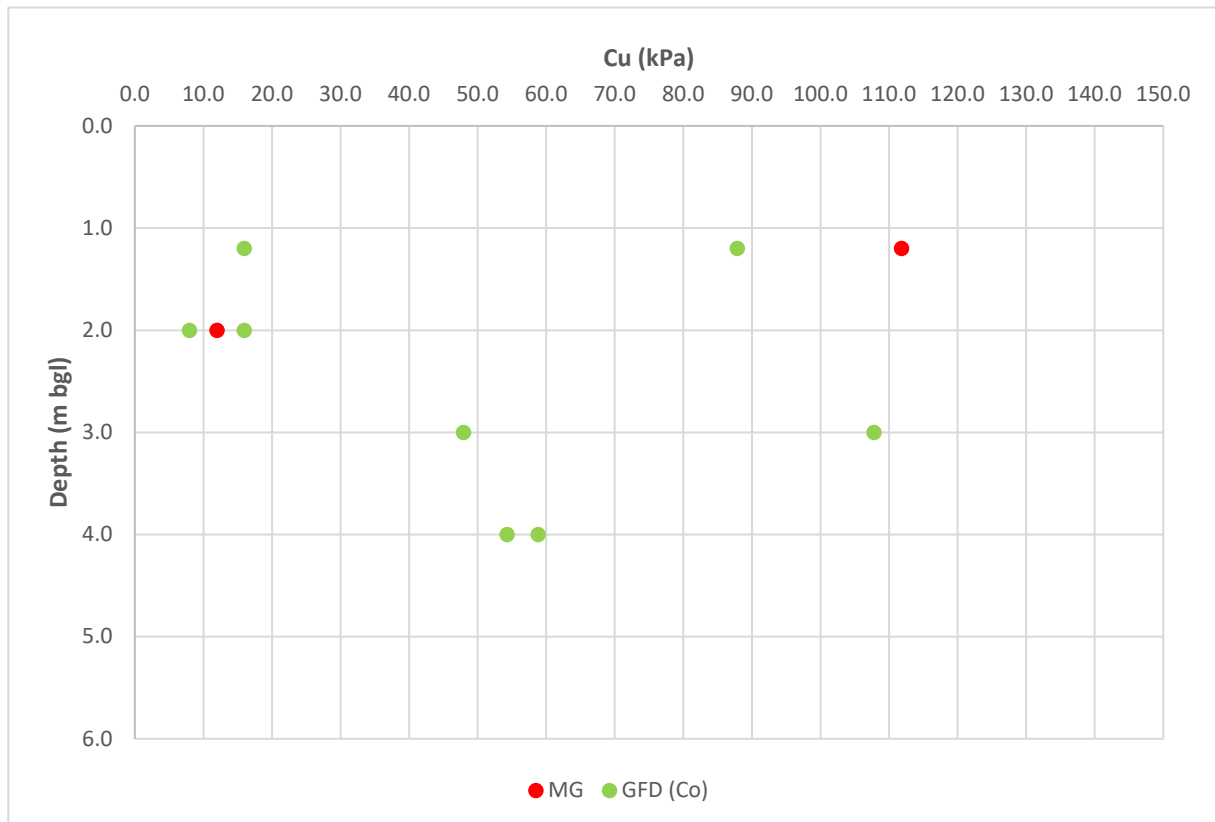
The laboratory analysis undertaken to date can be used to derive further geotechnical design parameters in order to assist with the assessment of the site.

8.5.1 Undrained Shear Strength

The relationship between index properties, SPT N₆₀ values and shear strength developed by Stroud (1975) has been used to estimate the undrained shear strength of the cohesive soils on the site ($C_u = f_1 \times N$, with an assumed conservative value for f of 4.5). These have been plotted against depth in Figure 2. This includes the corrected hand shear vane results.

It should be noted that the SPT test is designed primarily for assessing the density of granular soils.

Figure 2: Undrained Shear Strength vs Depth



8.5.2 Angle of Shearing Resistance

The Glaciofluvial Deposits were predominantly granular. The effective angle of shearing resistance (ϕ') has been calculated using the relationship established by Peck et al (1967) between SPT and ϕ' . Due to the generally medium dense nature of the natural granular soils on site, an initial ϕ' value of 30 is recommended for design purposes.

8.6 Discussion

8.6.1 General

The ground conditions encountered across the site comprised concrete slabs underlain by Made Ground to between 1.75m and 4.25m bgl. The Made Ground was highly variable and often soft / loose.

Due to the generally medium dense nature of the natural granular soils on site, an initial angle of effective shearing resistance (ϕ') value of 30 is recommended for design purposes.

Undrained shear strengths (C_u) in the cohesive natural strata varied between around 8kPa to 175kPa.

Groundwater was recorded in subsequent monitoring in four of the eight boreholes at depths between 1.73m and 4.97m bgl.

9 CONCLUSIONS & RECOMMENDATIONS

9.1 Geo-Environmental

This report has reviewed the site history and available environmental data records. A site walkover inspection and intrusive investigation were also carried out.

The proposed use for the site is as a waste soil treatment facility.

Although some laboratory results remain outstanding, the currently available data indicate that the site poses a low risk to human health and controlled waters.

9.2 Geotechnical

The site is almost entirely surface with concrete slabs. These were all intact with little or no evidence of damage / failure. The concrete slabs are underlain by Made Ground to between 1.75m and 4.25m bgl. The bearing capacity of the slabs has not been assessed as part of this report.

The Made Ground was found to be highly variable and often soft / loose.

Although no new buildings are currently proposed, it is recommended that foundations for future buildings on the site are extended down to the natural Glaciofluvial Deposits (generally around 3m bgl). These should provide an allowable bearing pressure of 75kN/m² for conventional pad foundations. Further investigation is recommended specific to the location of any future buildings.

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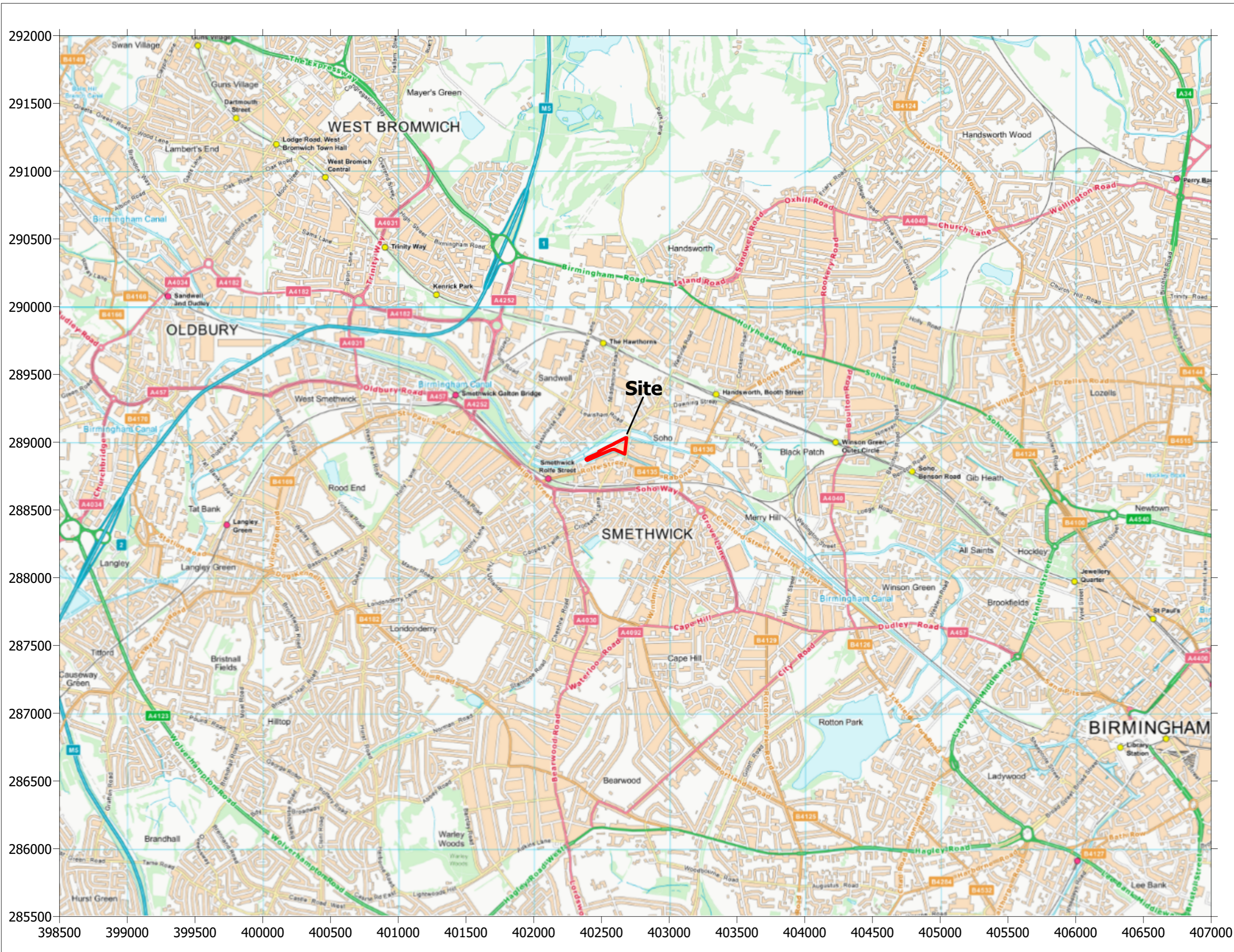
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DRAWINGS


10143-001	Site Location Plan
10143-002	Borehole Location Plan



Notes

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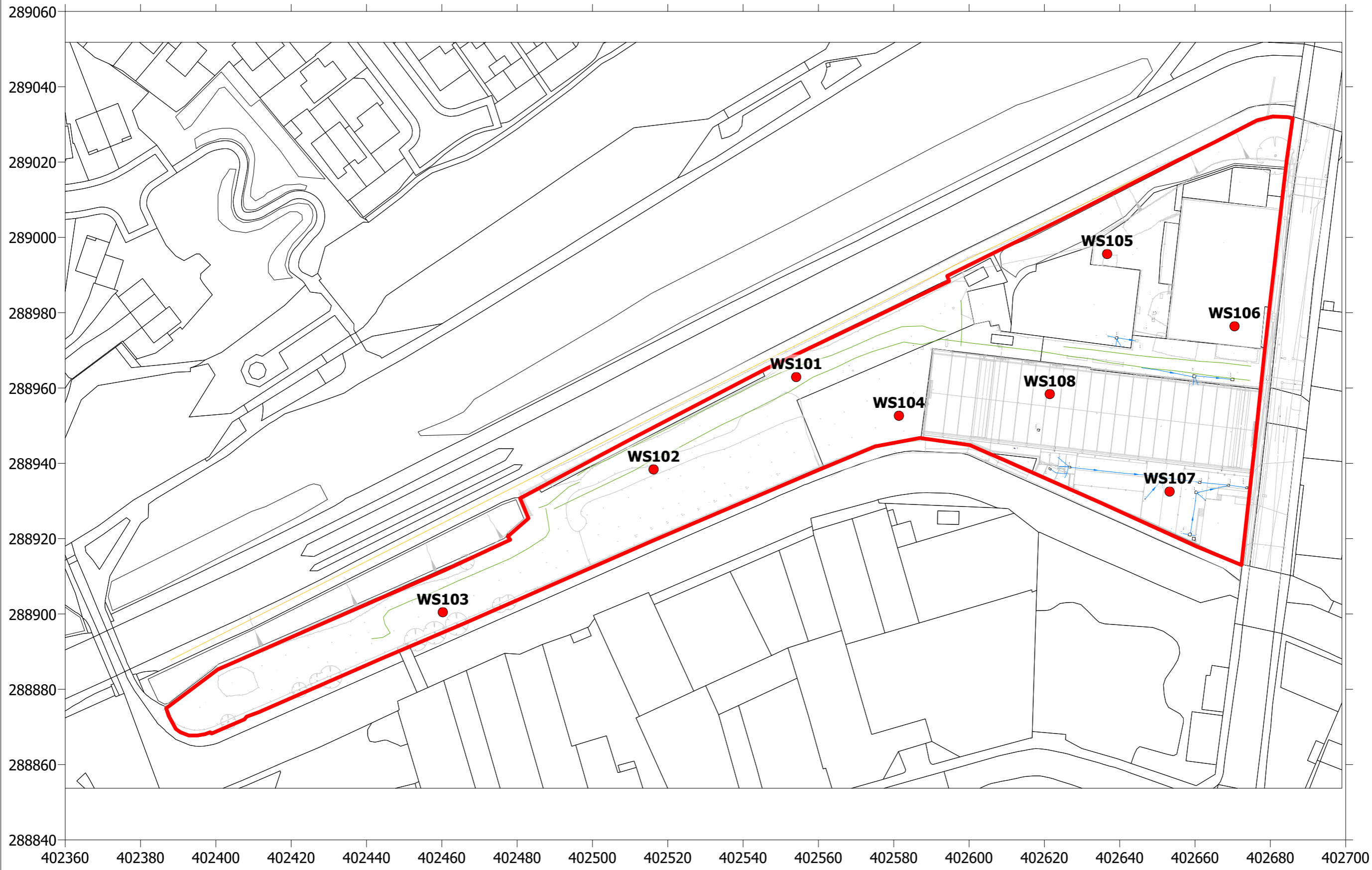


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Dunton Technologies

Site
Bridge Street North, Smethwick

Title
Site Location Plan

Scale at A3	Date	Drawn	Checked
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Project No	Drawing No	Rev	
10143	10143-001		



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 Duntun Technologies

Site
 Bridge Street North, Smethwick

Title
 Borehole Location Plan

Scale at A3	Date	Drawn	Checked
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Project No	Drawing No	Rev	
10143	10143-002		

APPENDIX A – HISTORIC MAPS

Site Details:

BRIDGE STREET NORTH,
SMETHWICK, BIRMINGHAM,
B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series Town Plan

Map date: 1887

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Map Name: County Series

Map date: 1889-1890

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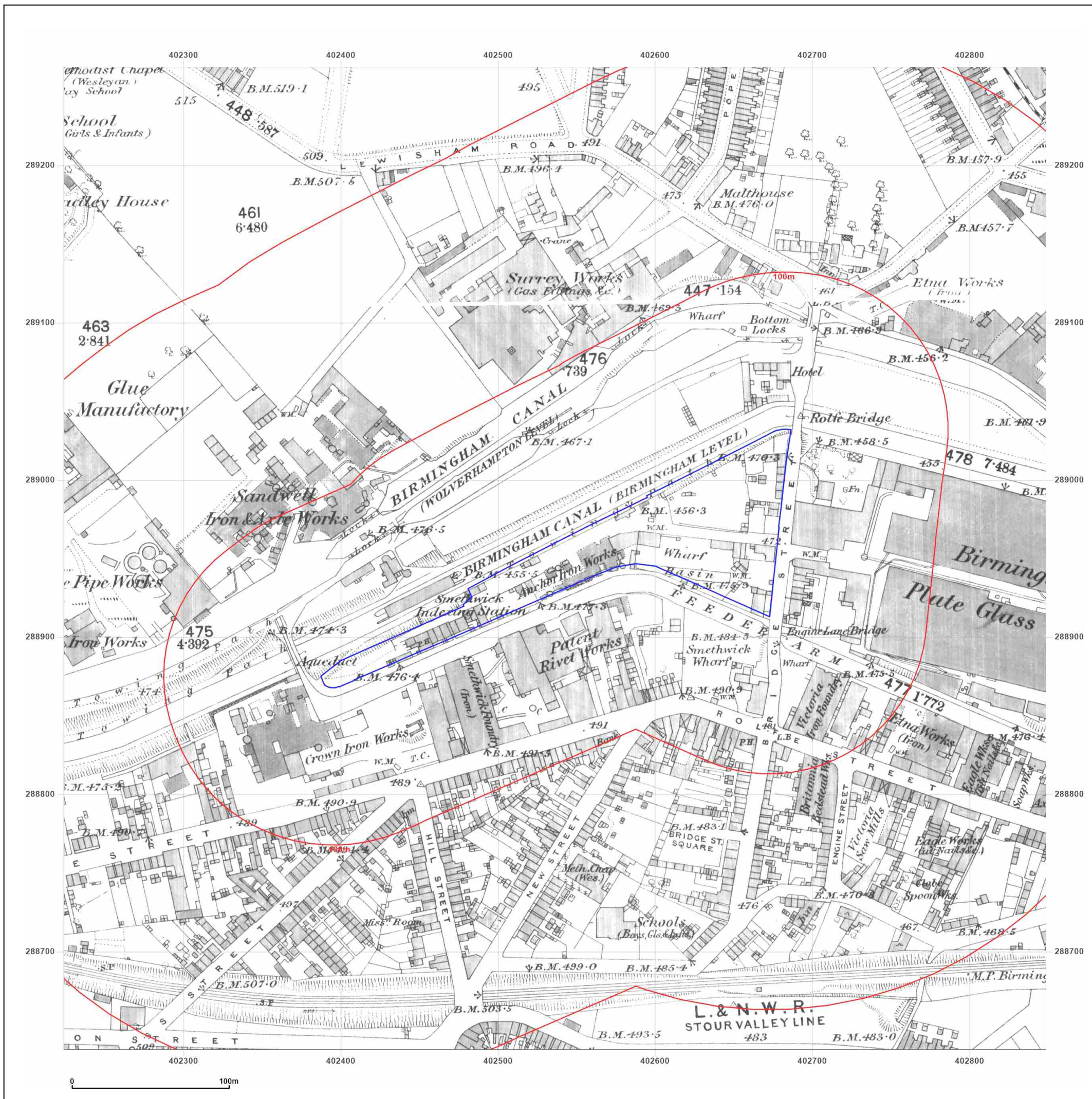


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Map Name: County Series

Map date: 1904

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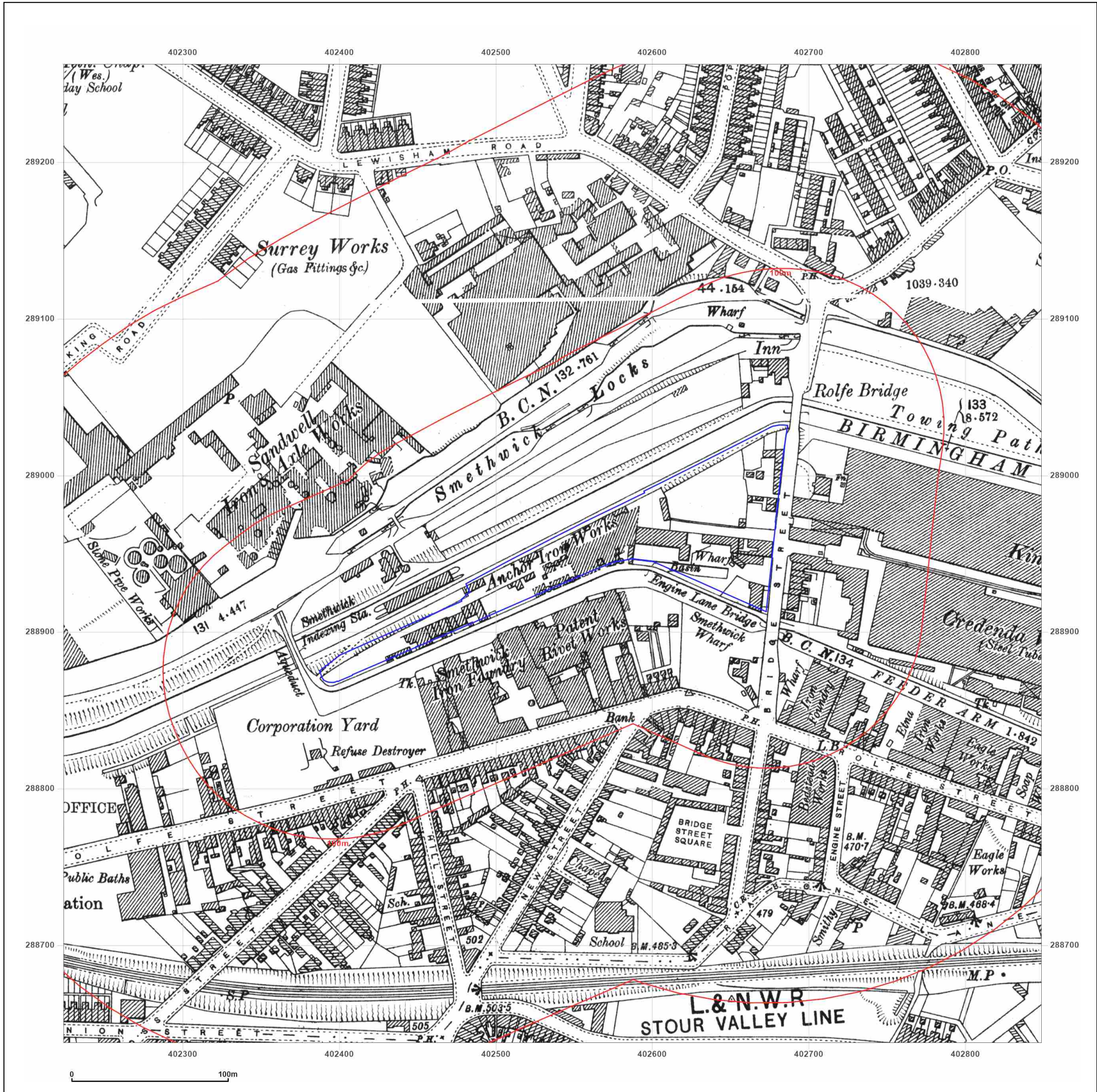


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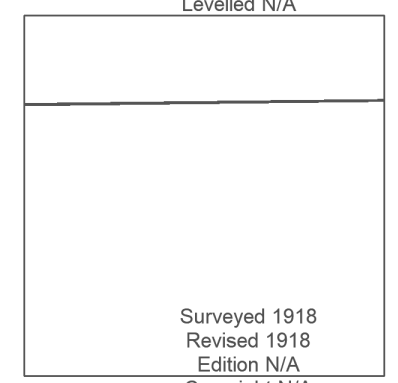
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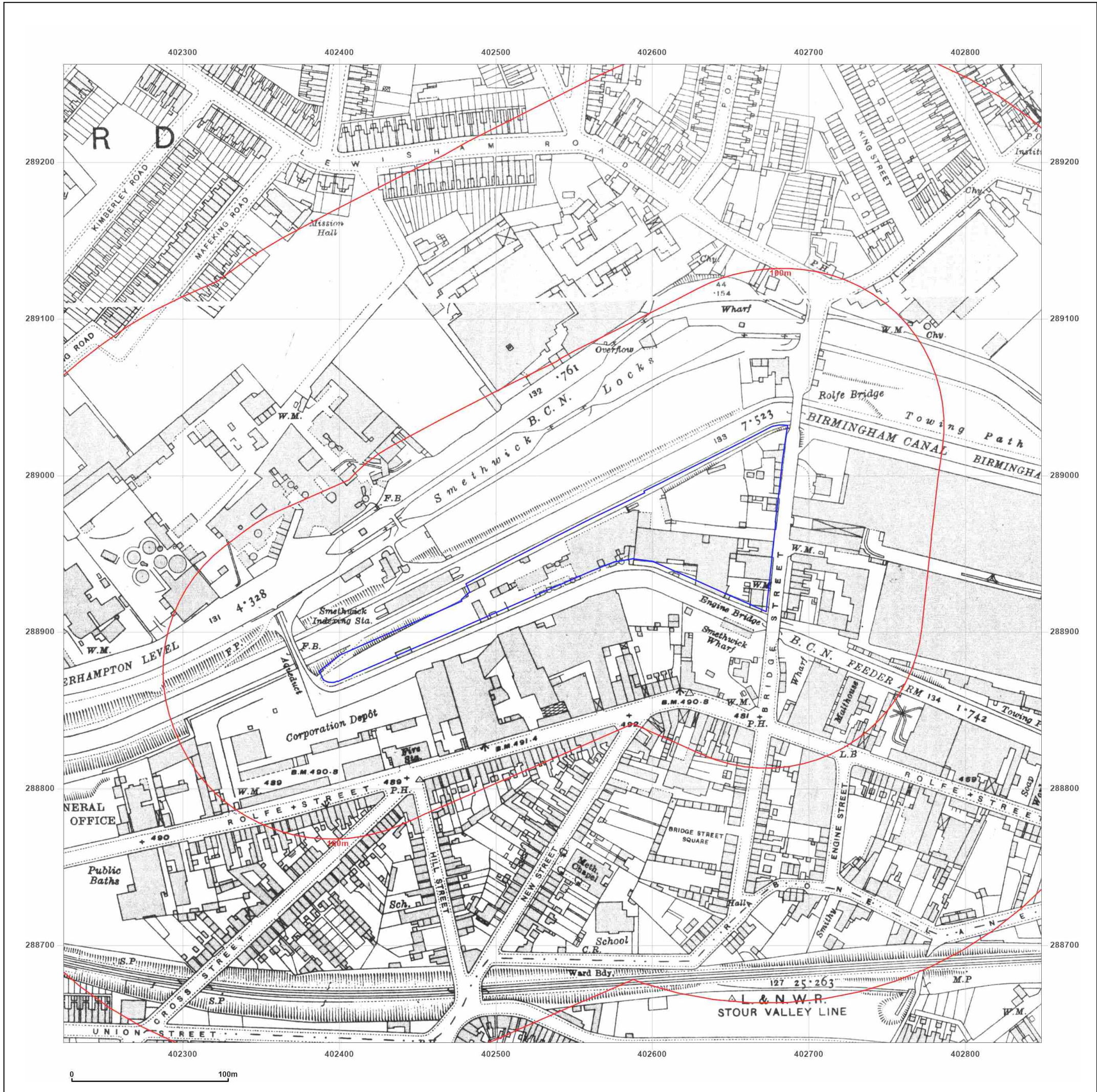


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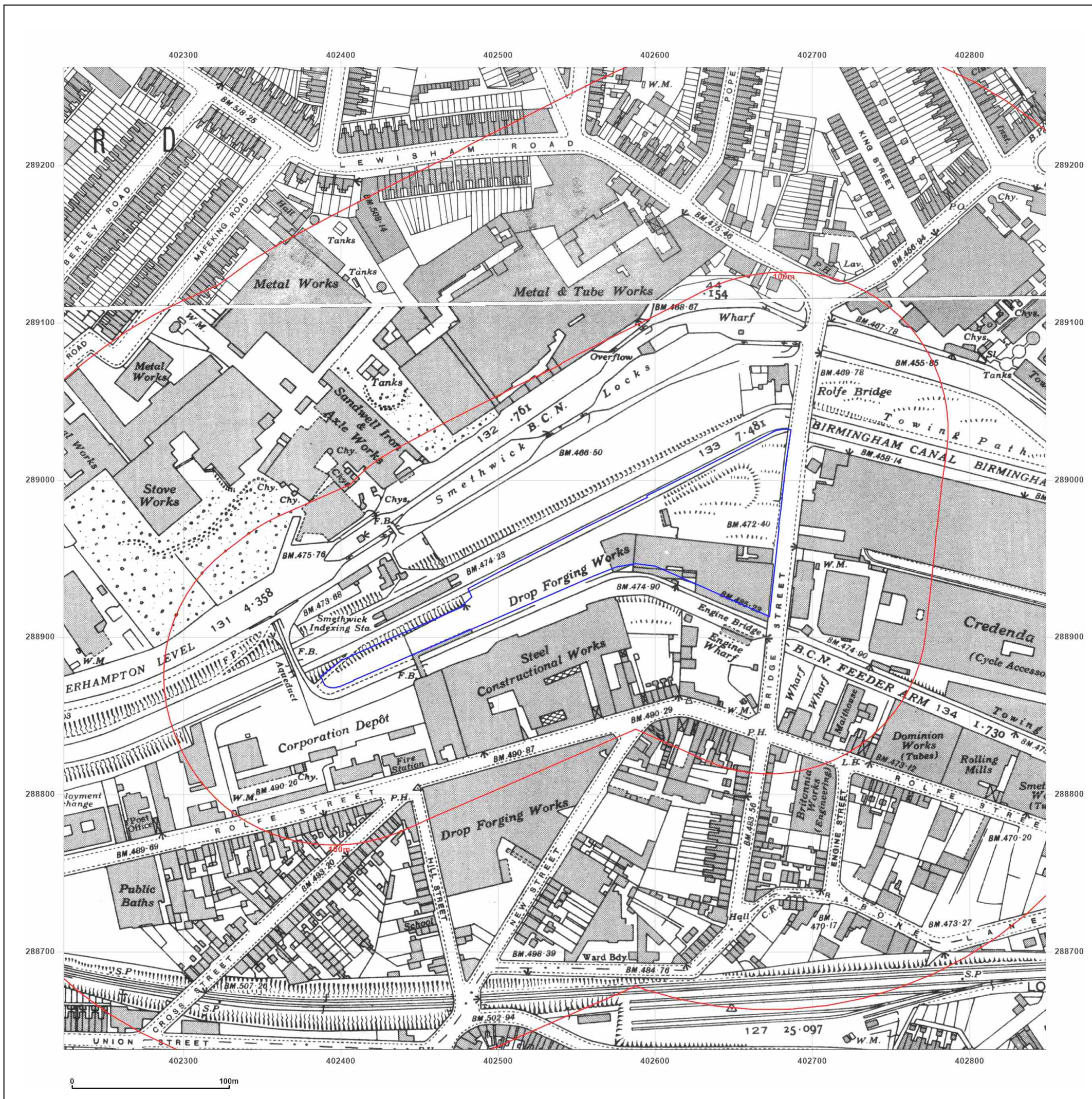


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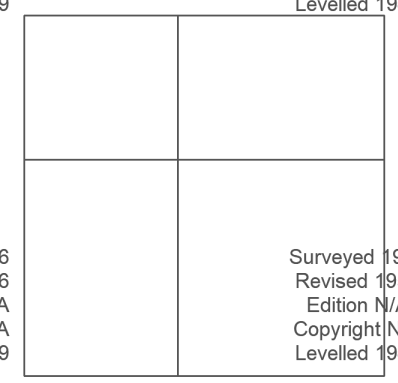
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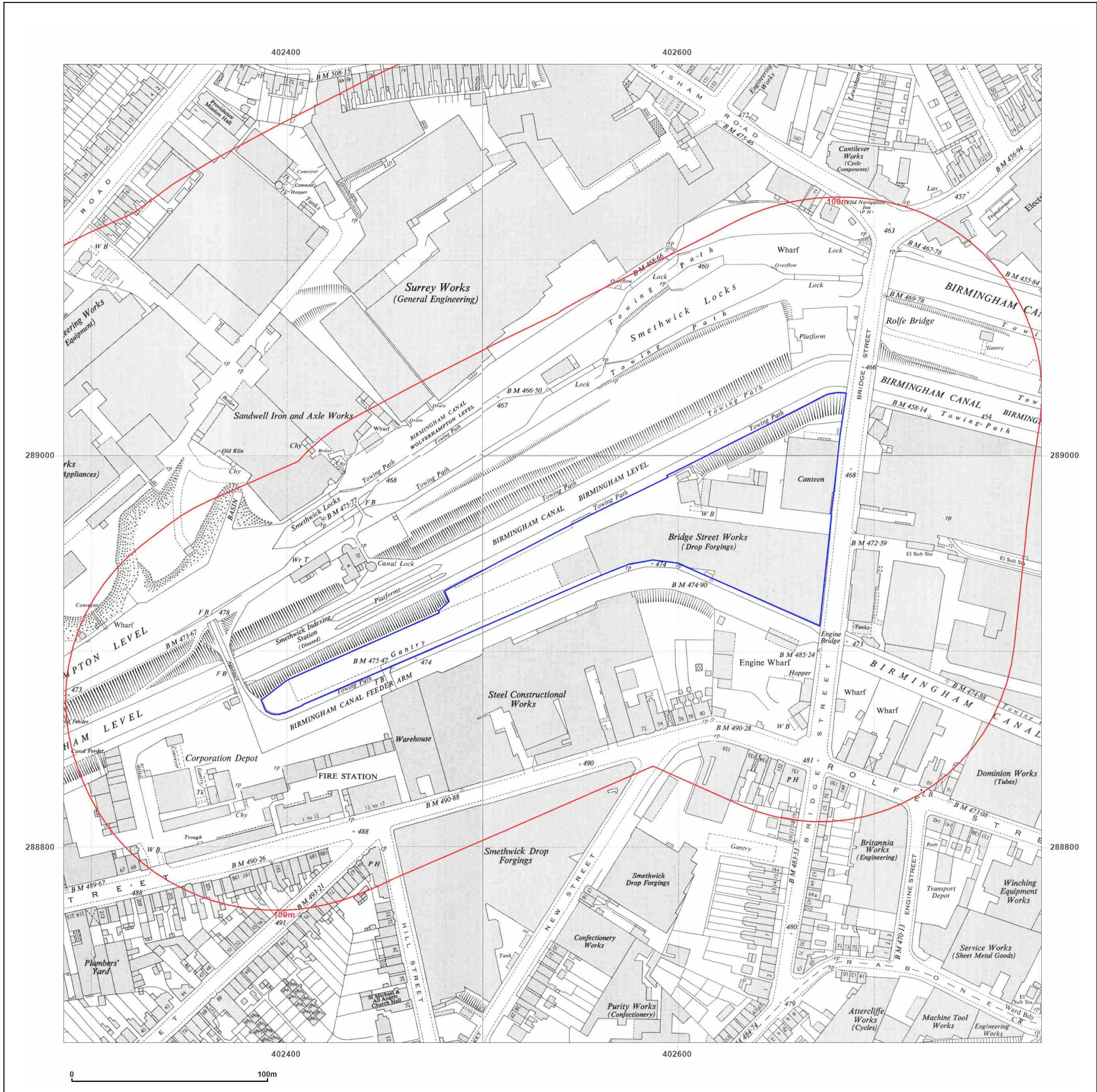


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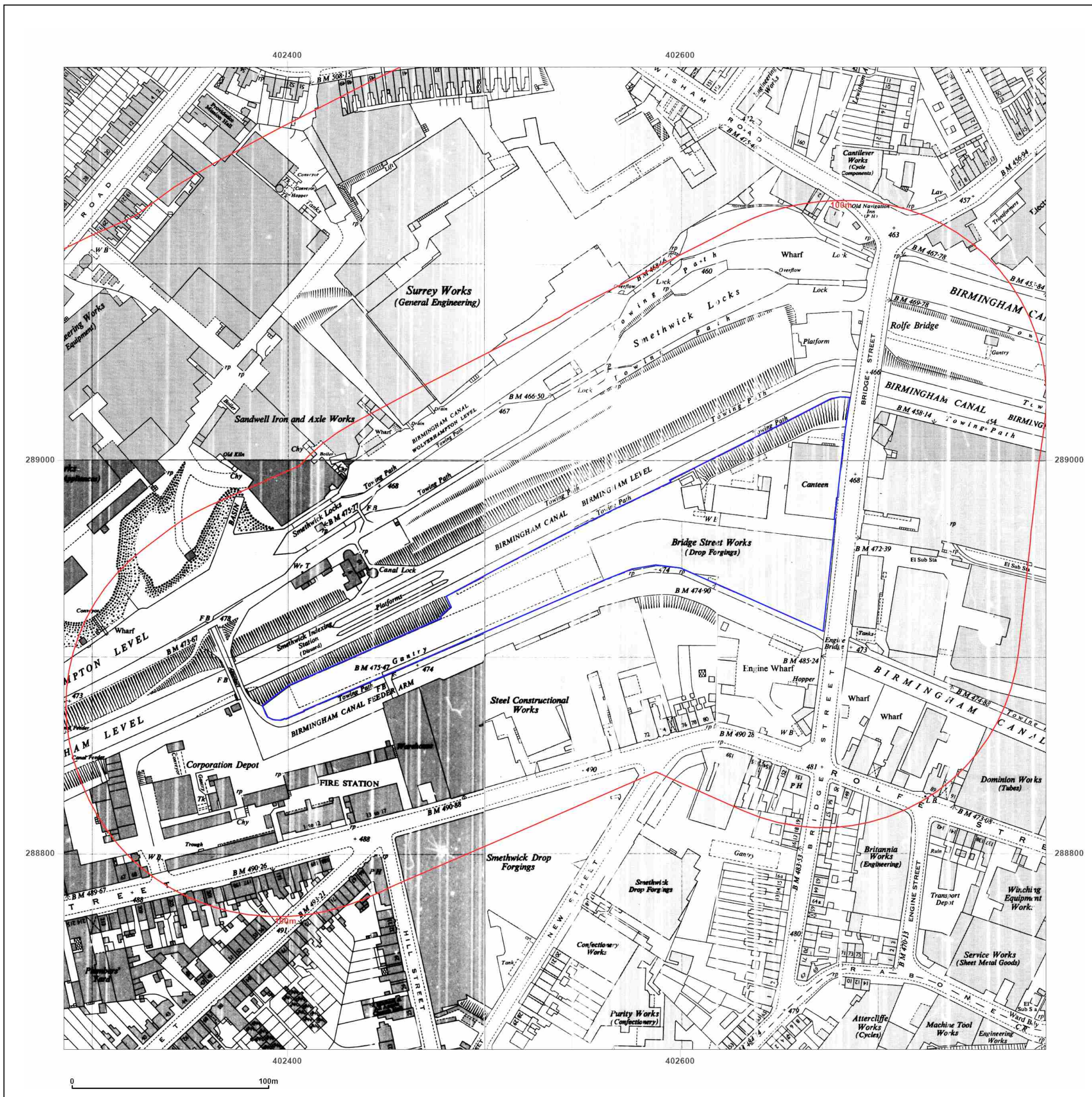


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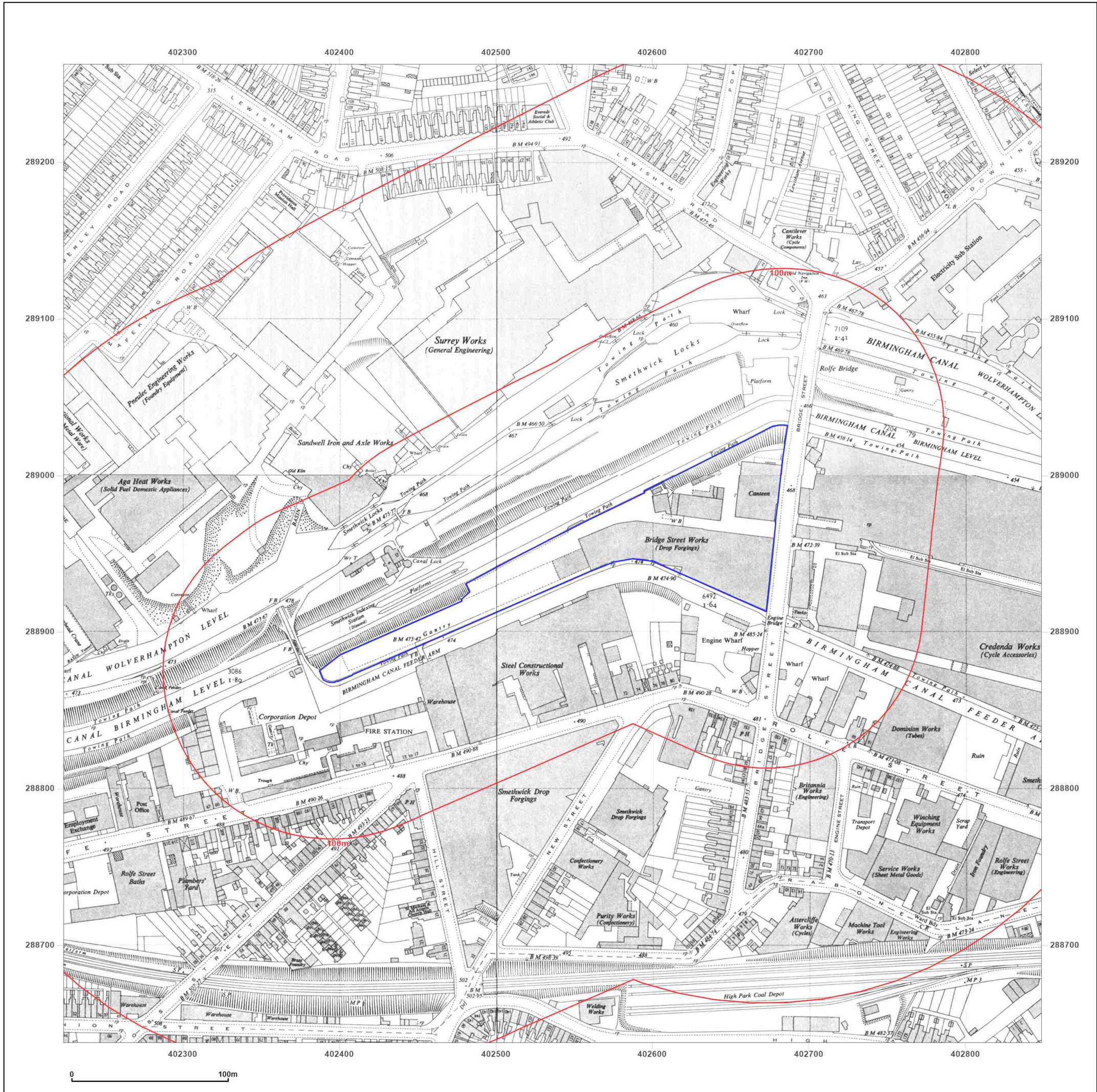


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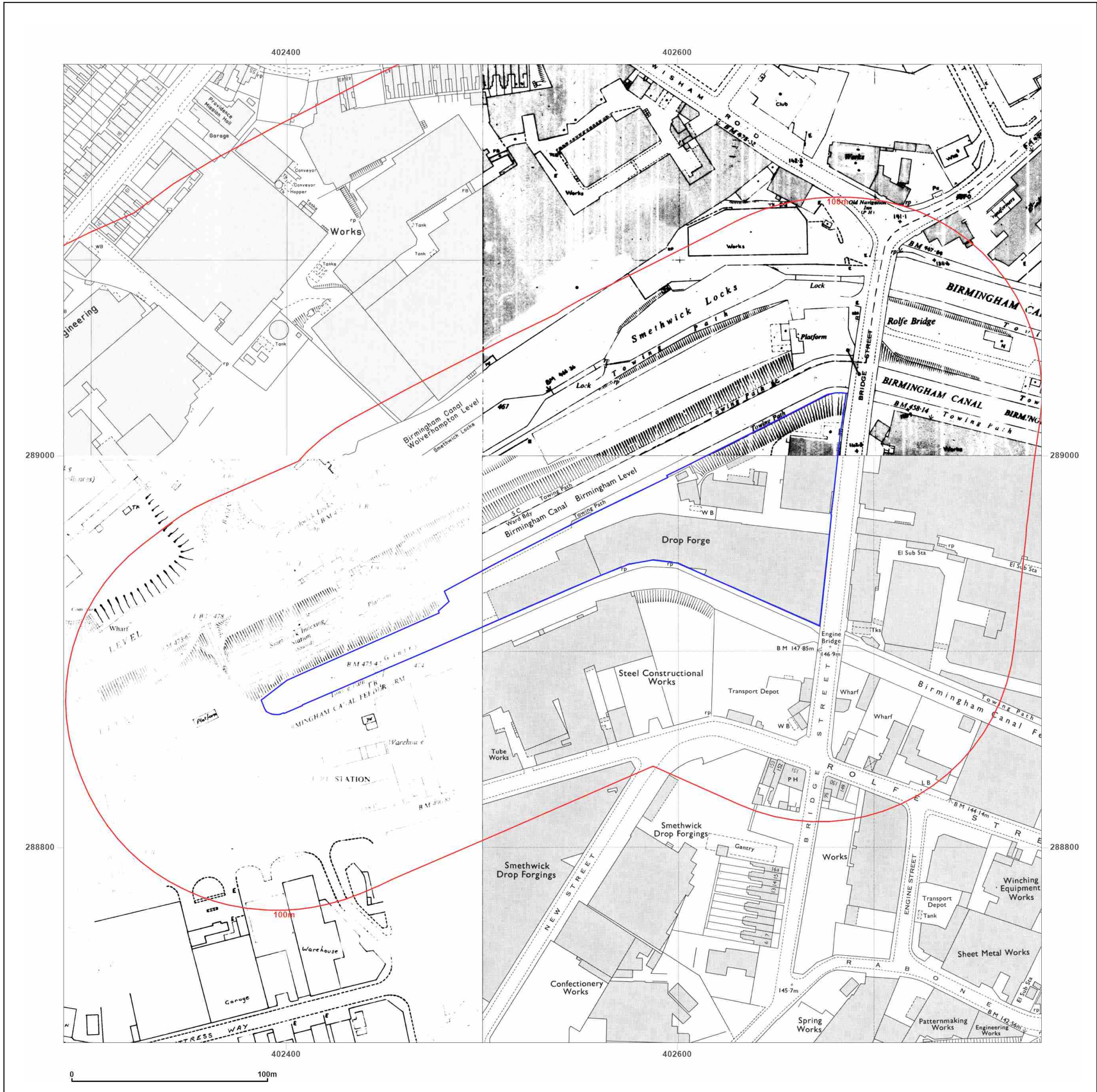


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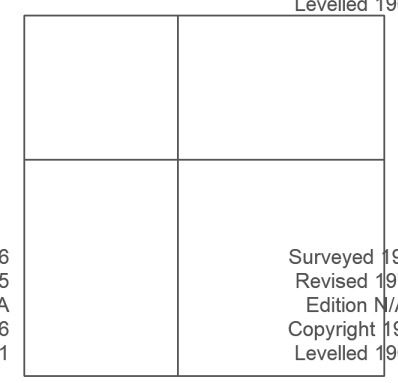
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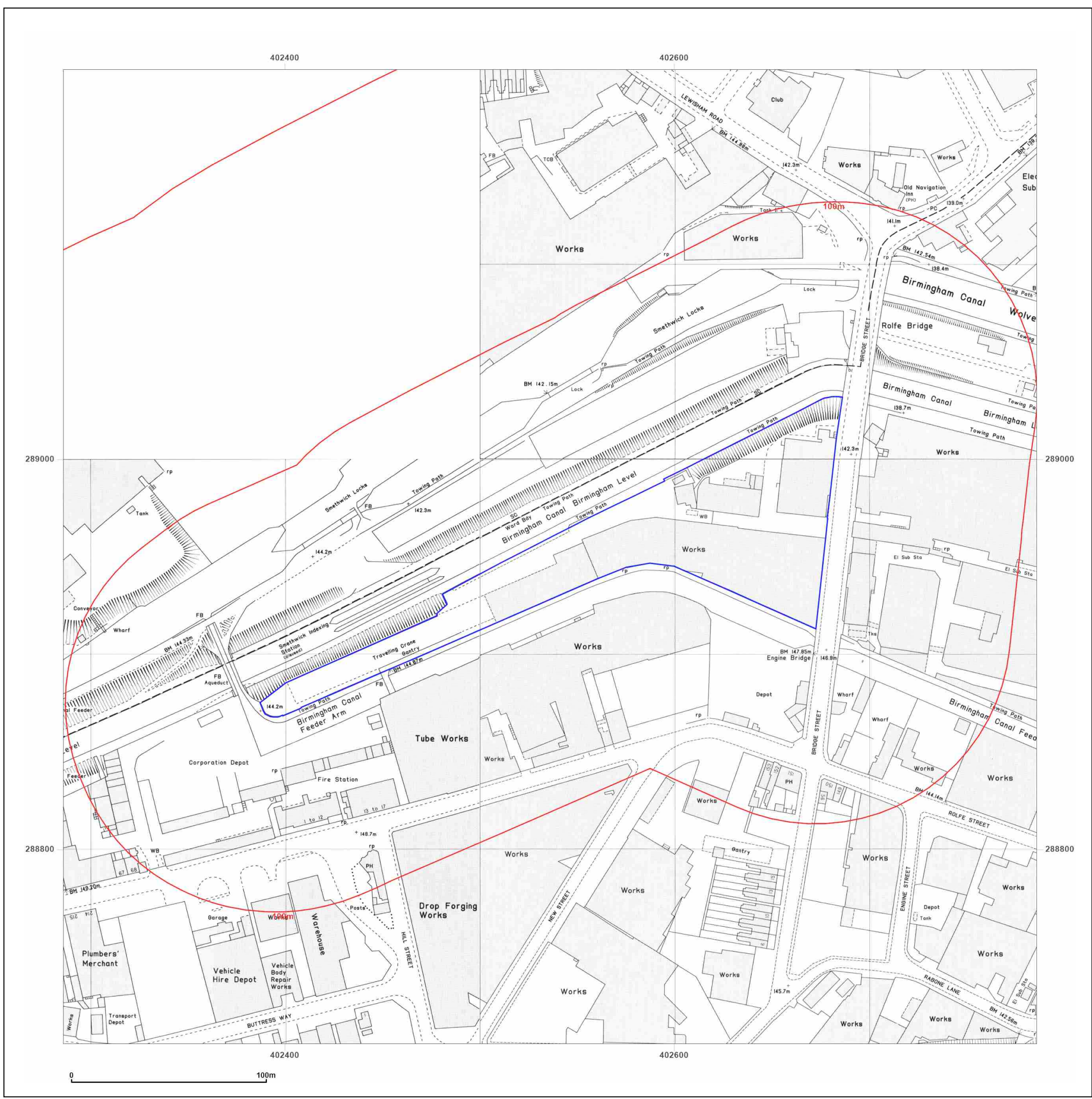


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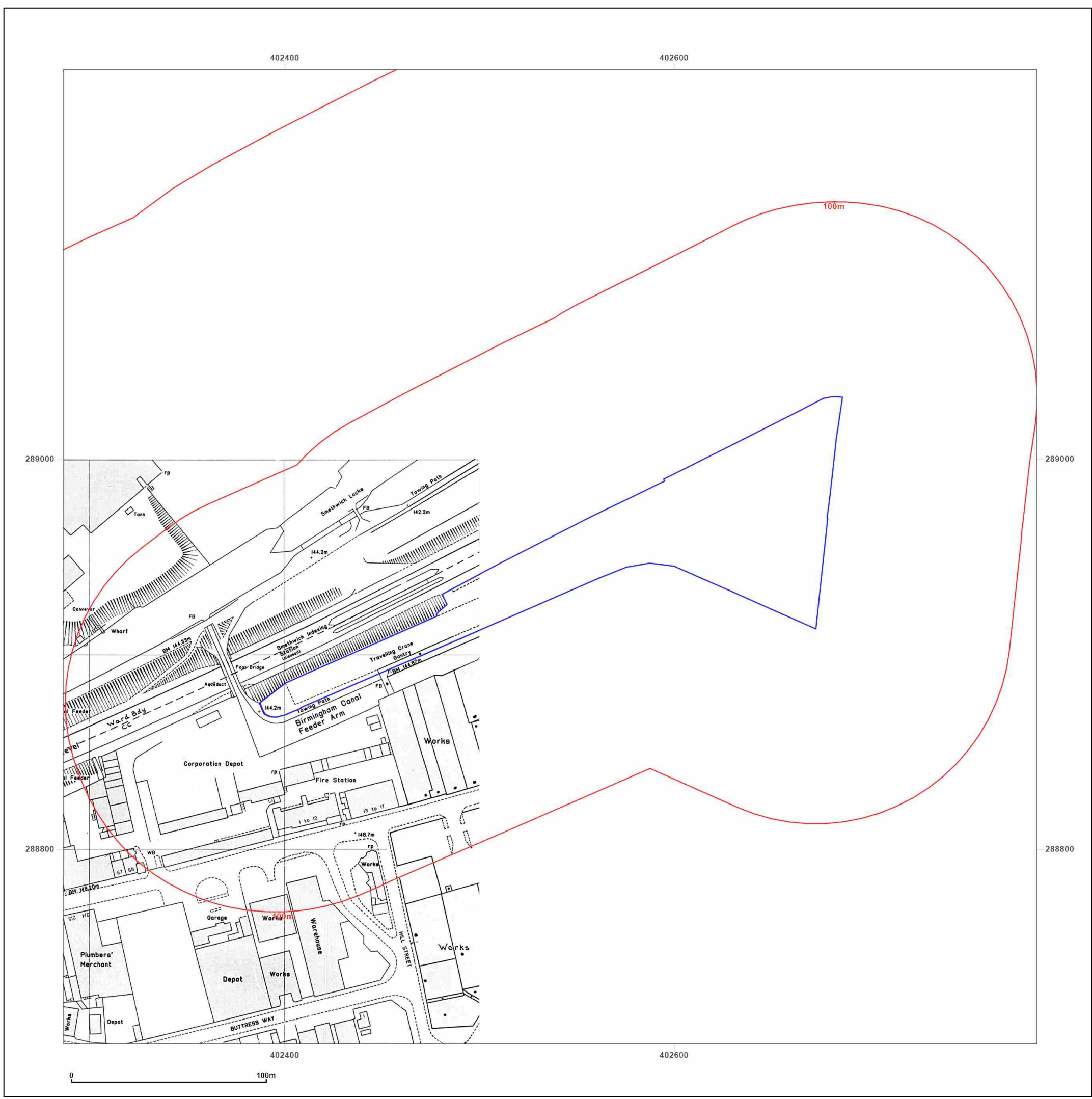


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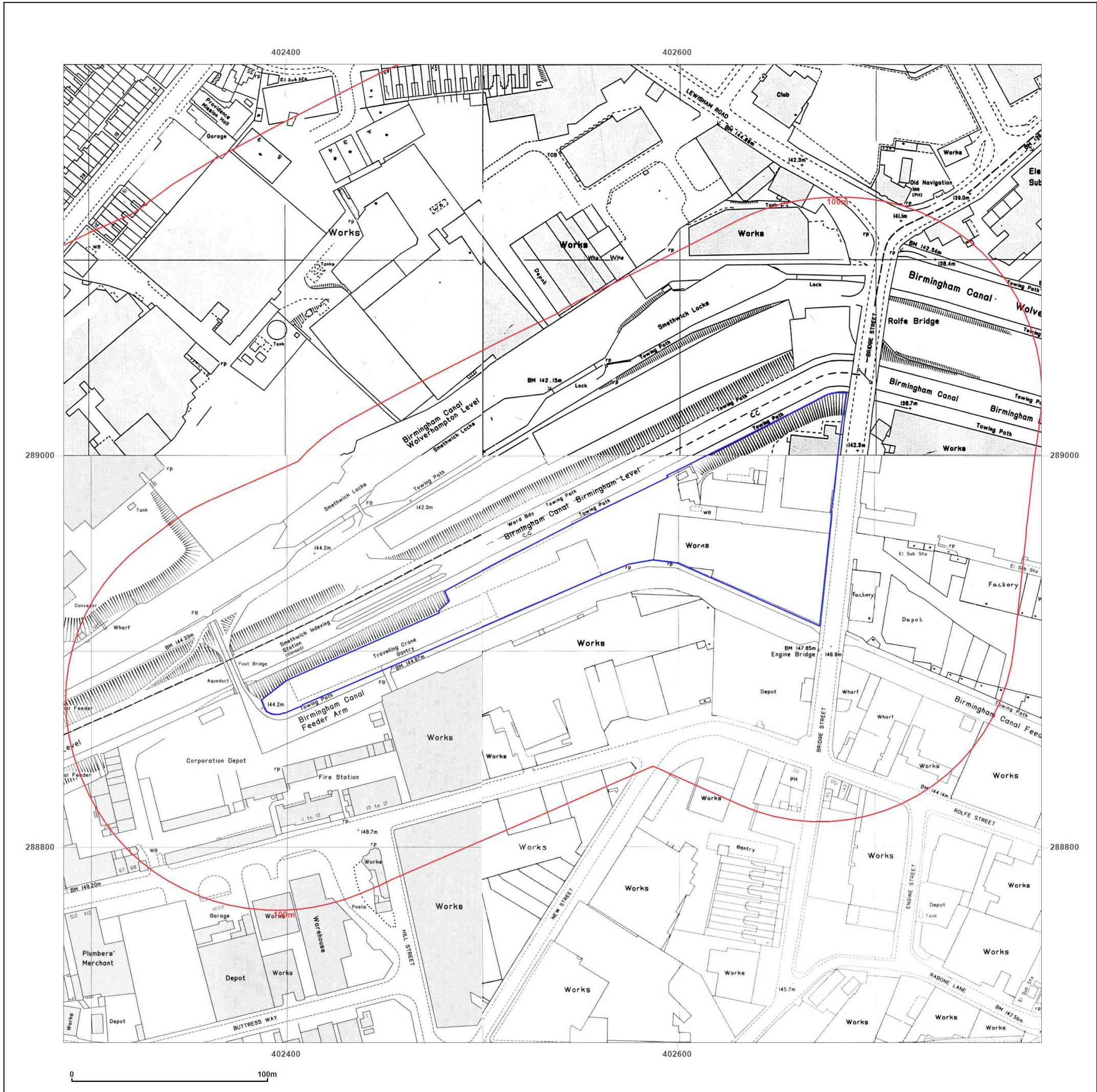


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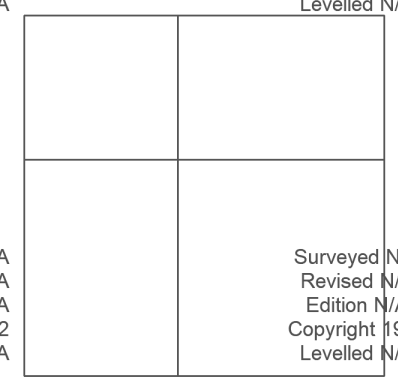
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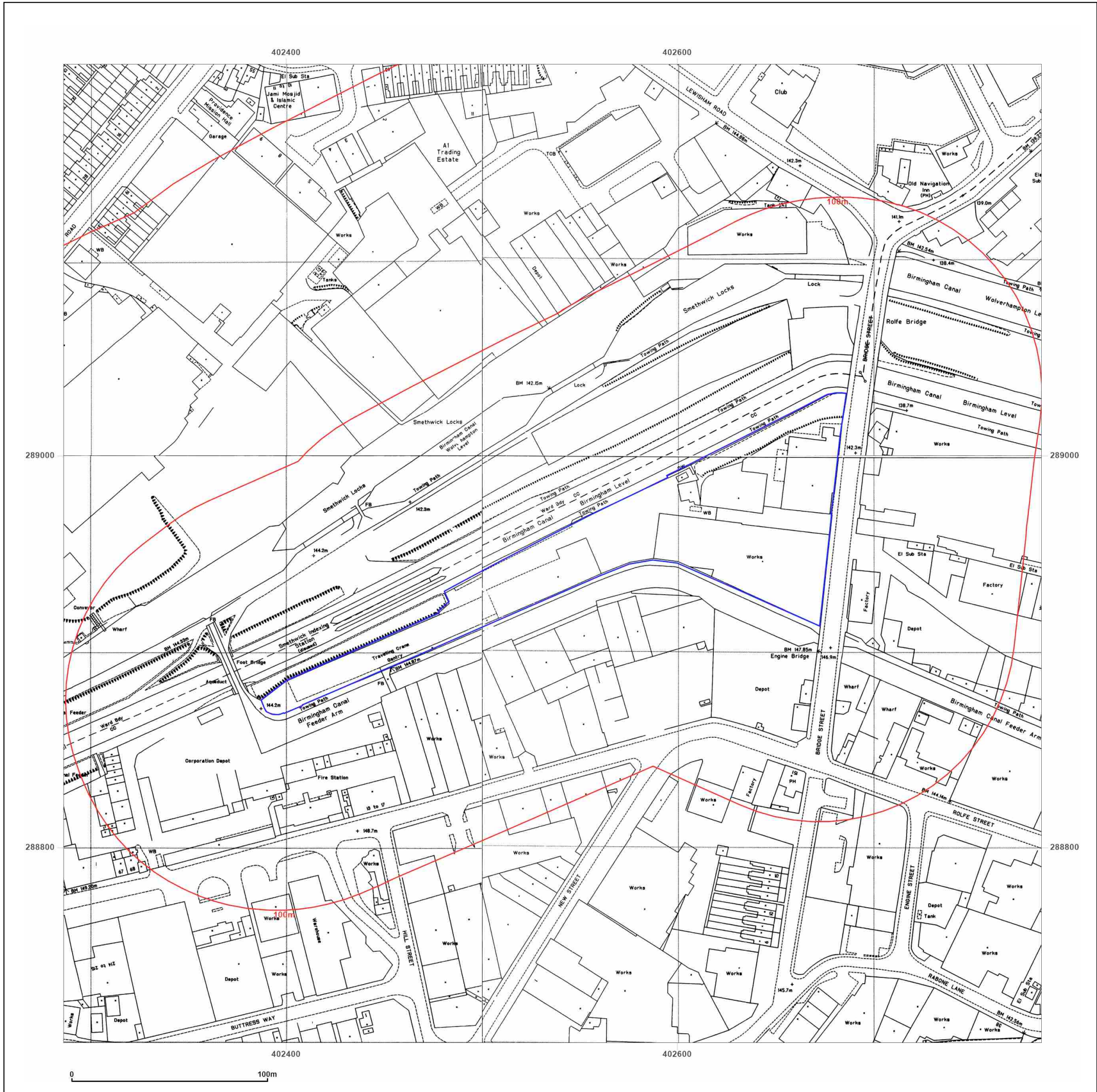


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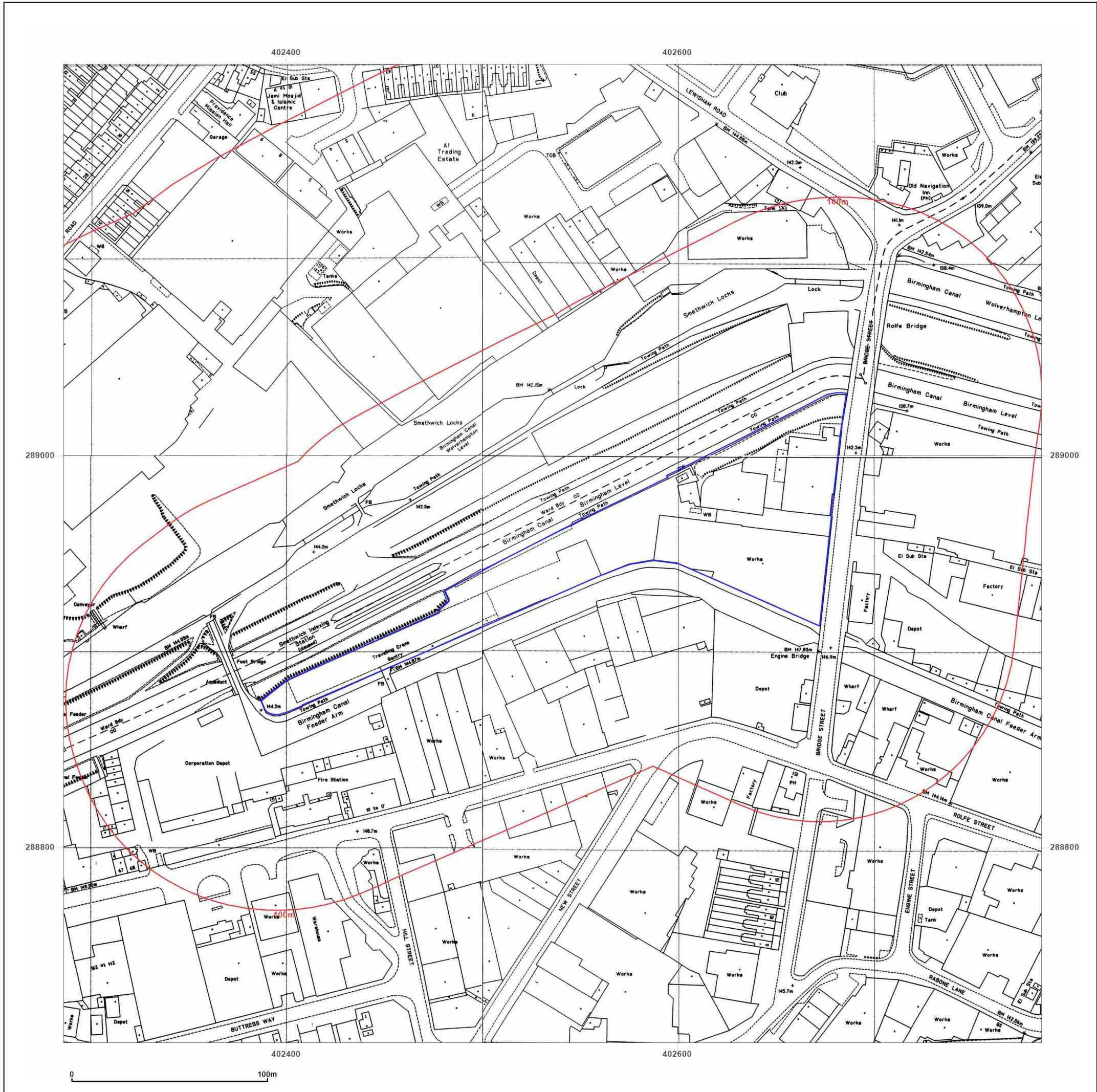


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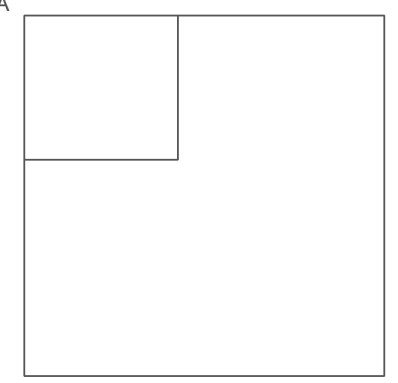
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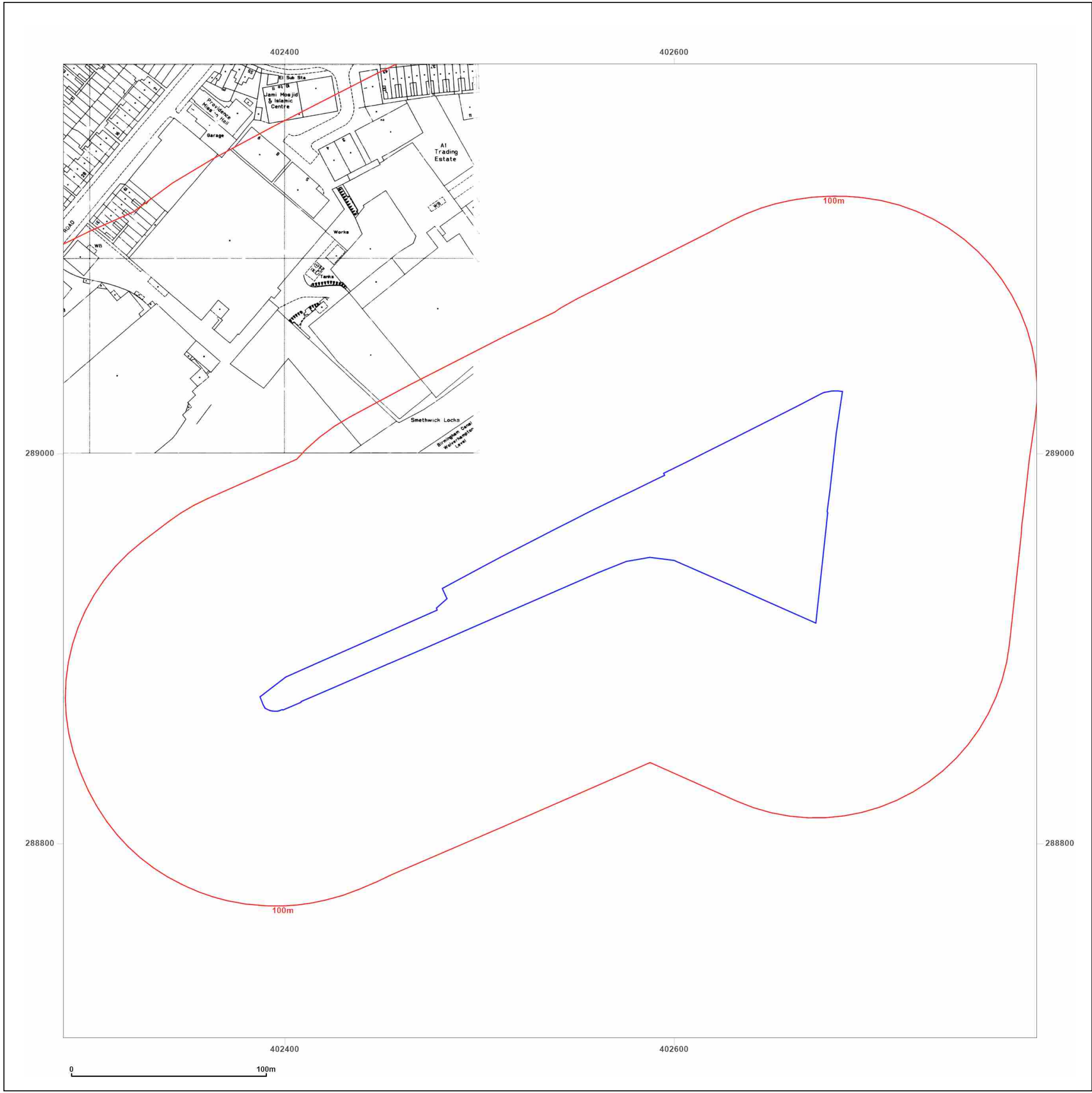


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Site Details:

BRIDGE STREET NORTH,
SMETHWICK, BIRMINGHAM,
B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid

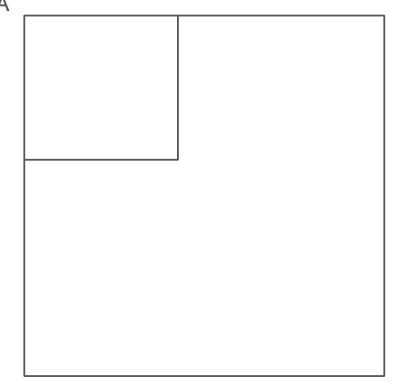
Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1994
Revised 1994
Edition N/A
Copyright 1994
Levelled N/A

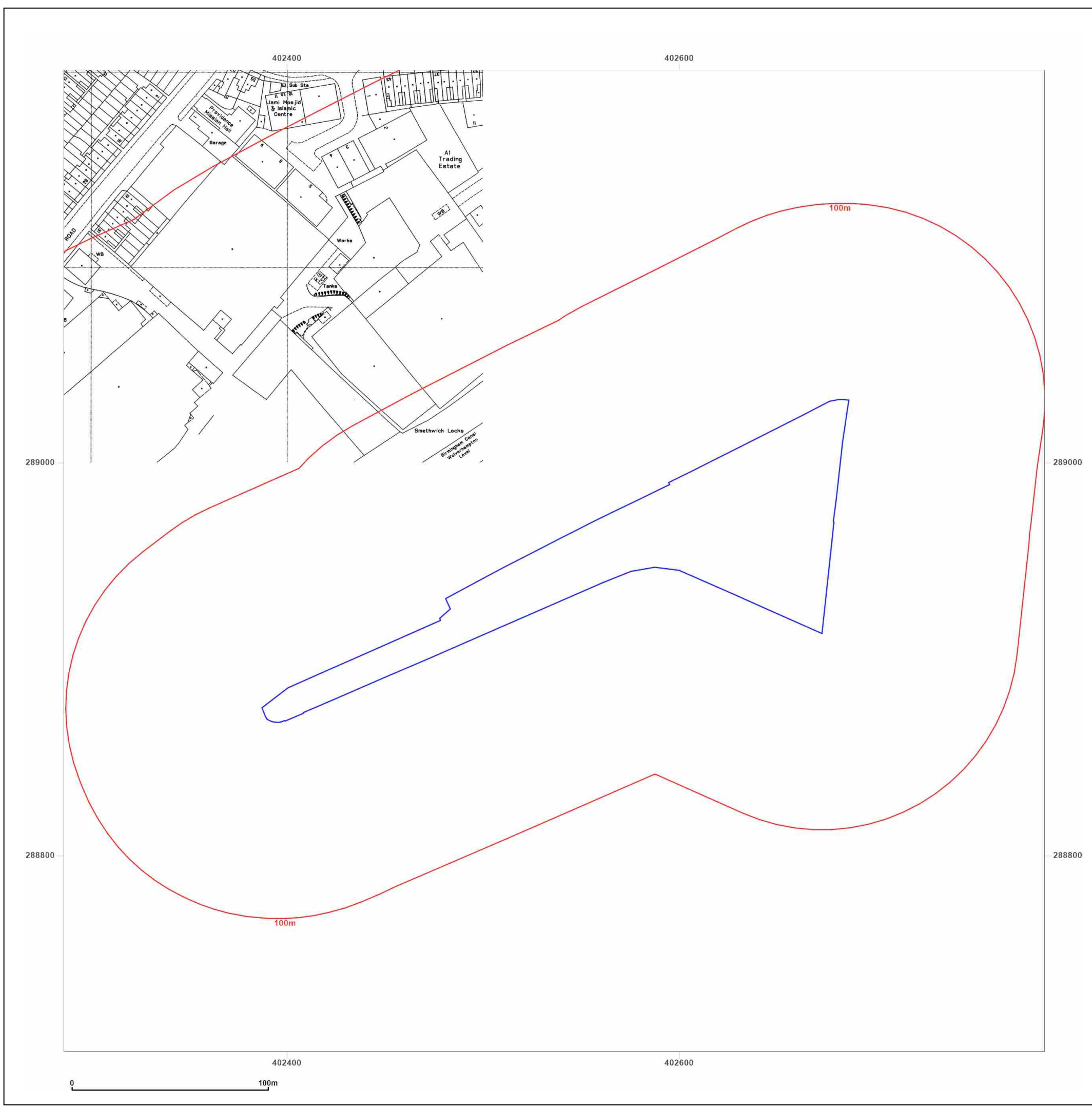


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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid

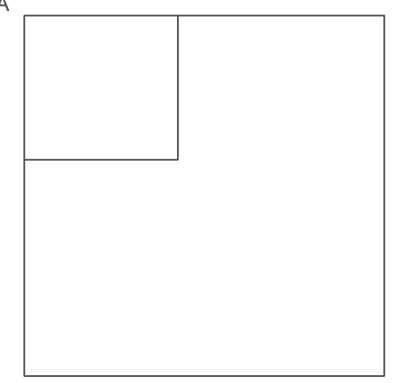
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Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1994
Revised 1994
Edition N/A
Copyright 1994
Levelled N/A

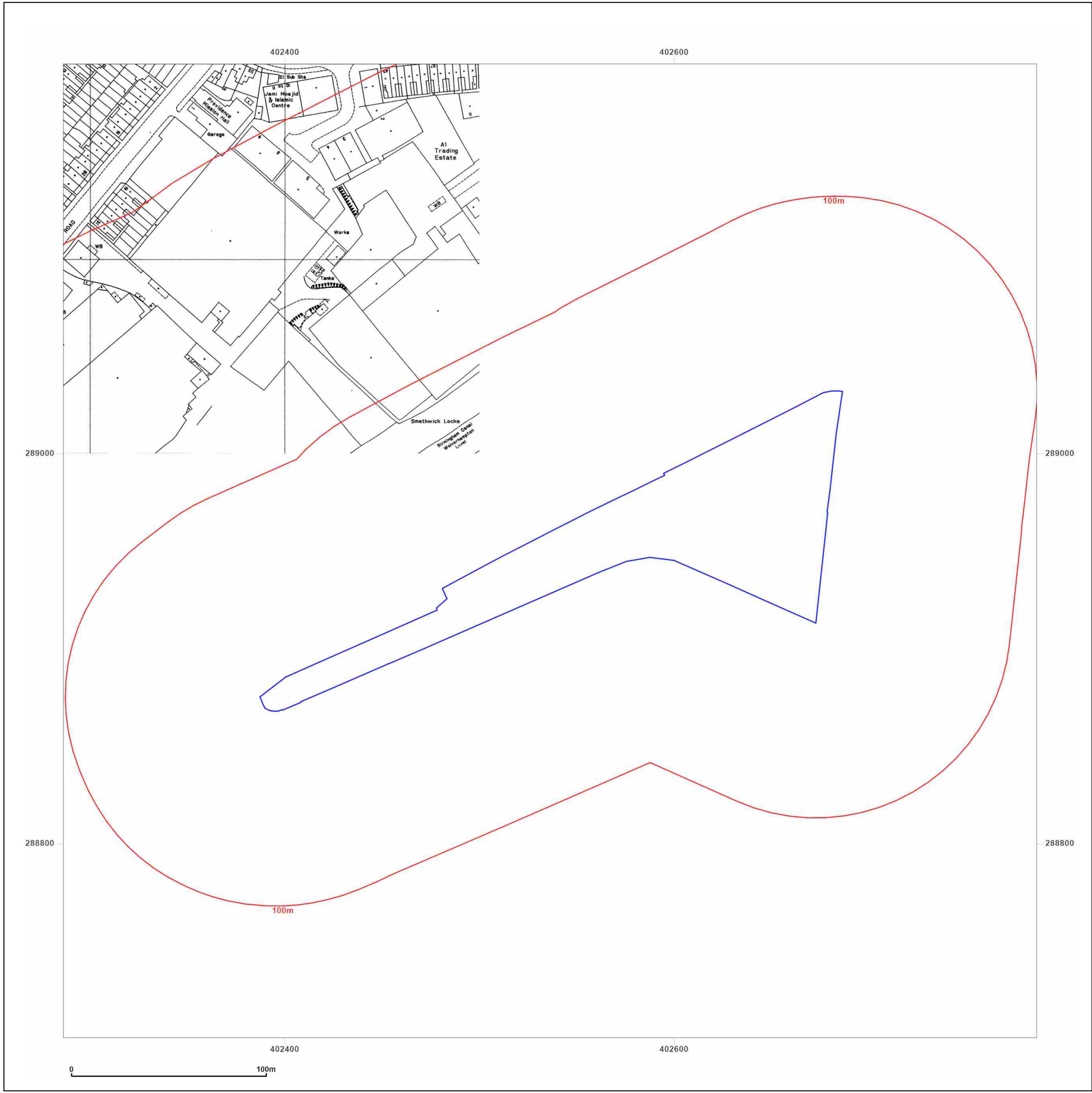


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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid

Map date: 1993-1994

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

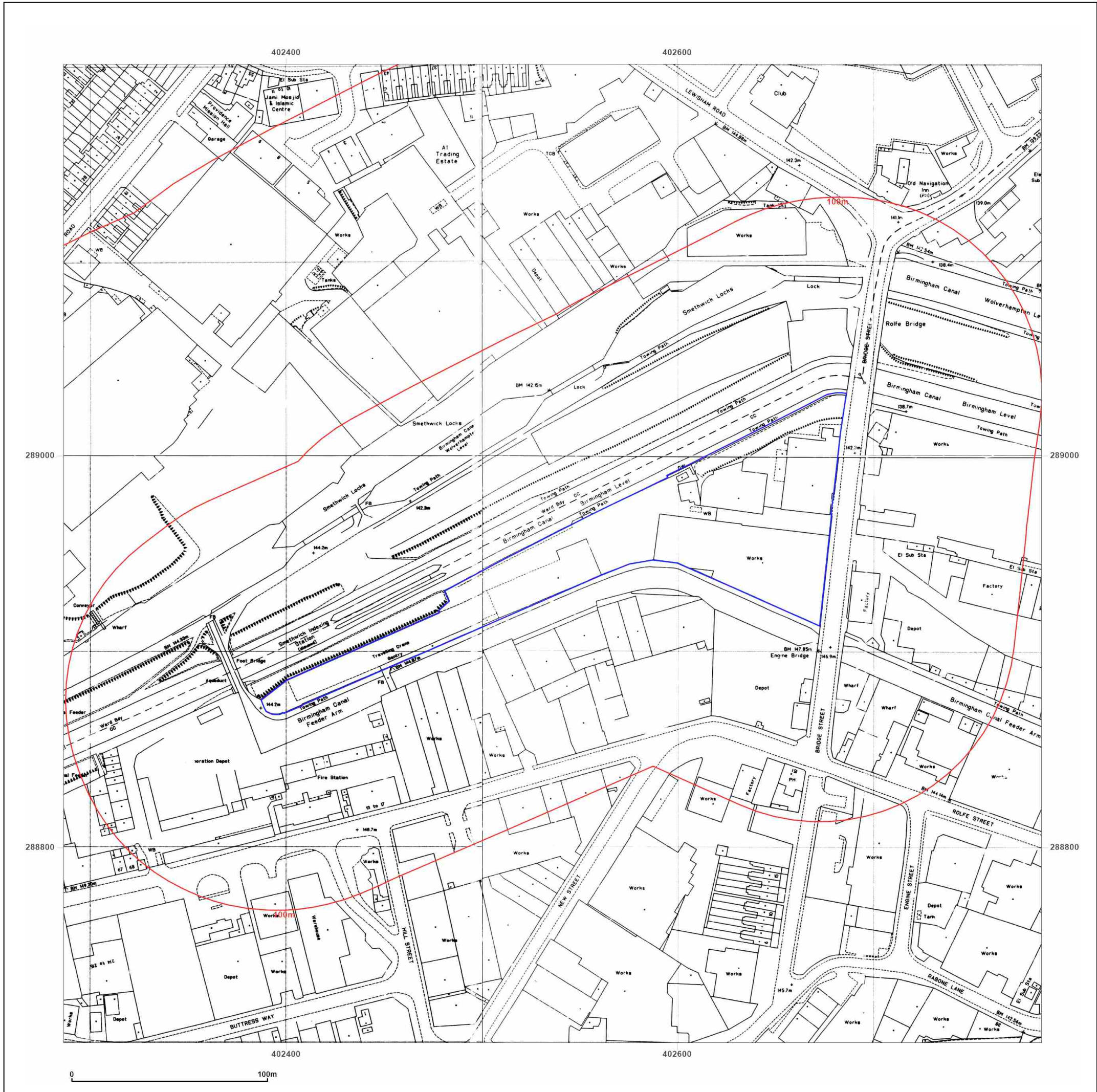


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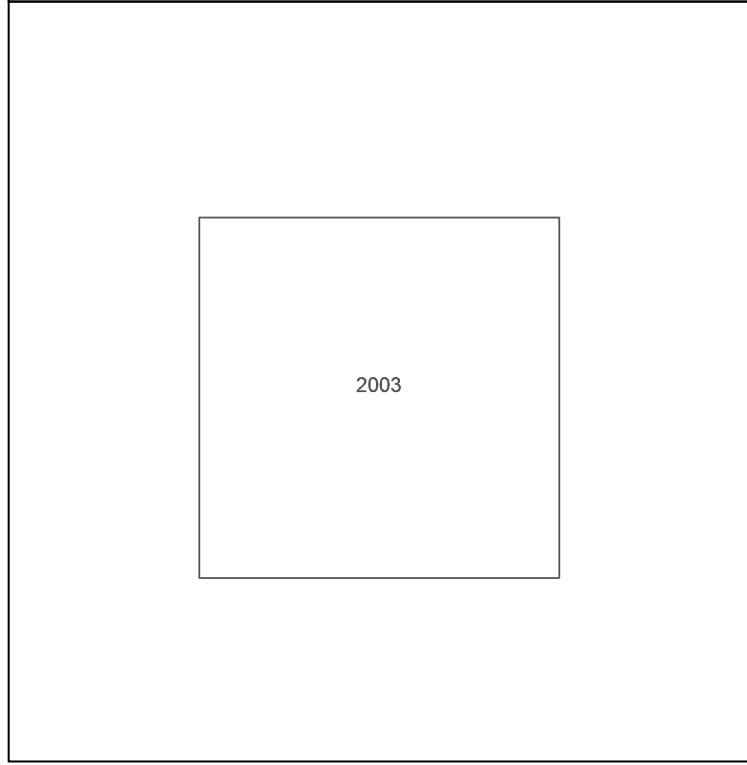
Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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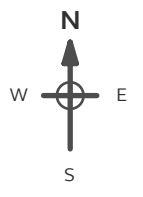
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Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1883-1888

Scale: 1:10,560

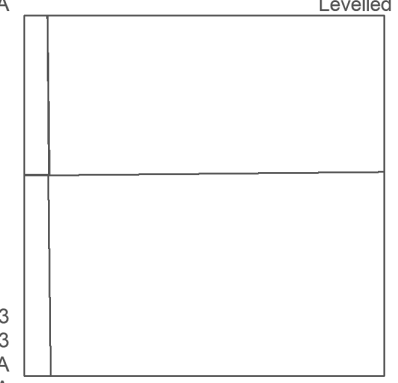
Printed at: 1:10,560



Surveyed 1886
Revised 1886
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1888
Revised 1888
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1883
Revised 1883
Edition N/A
Copyright N/A
Levelled N/A

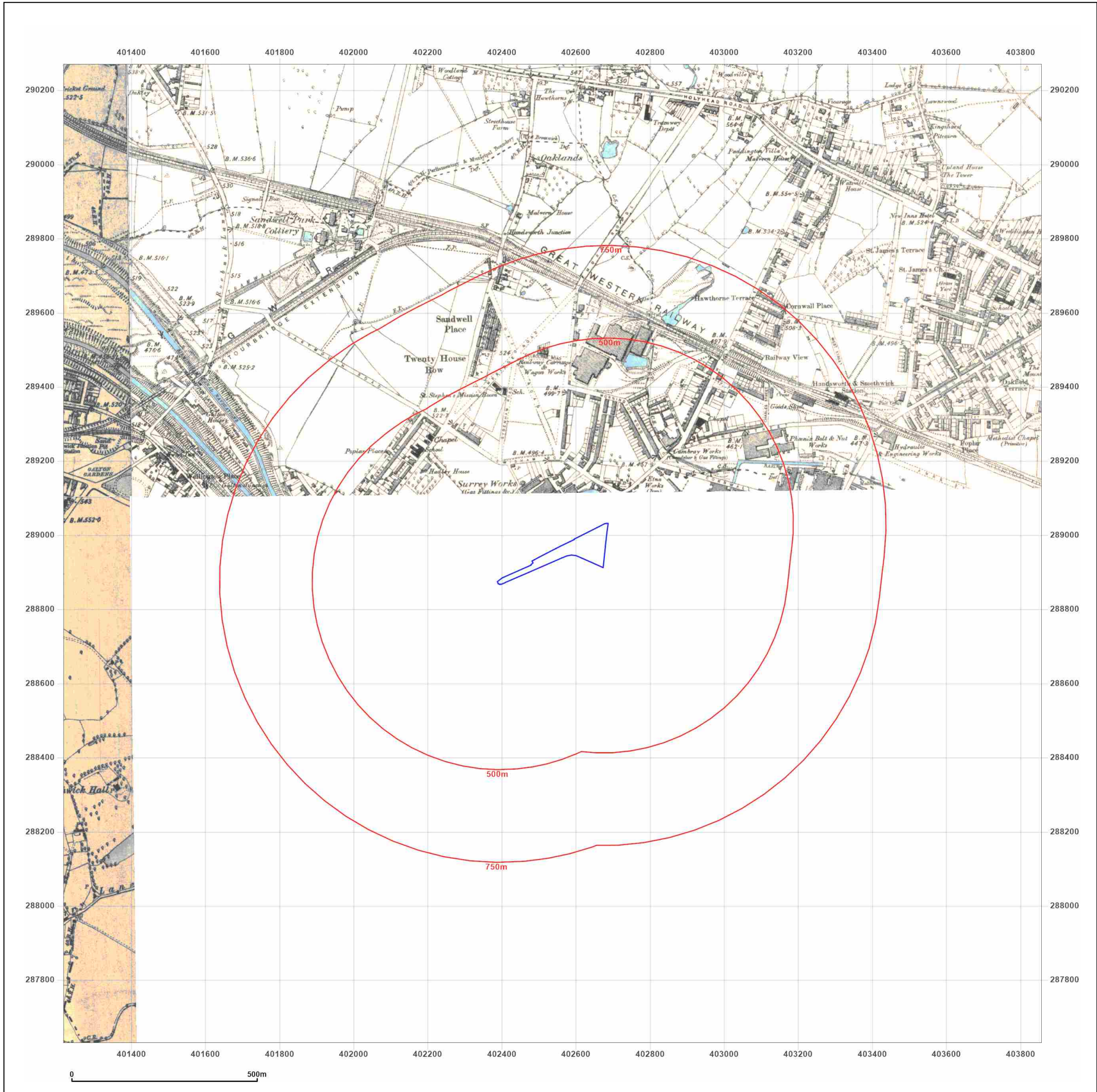


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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

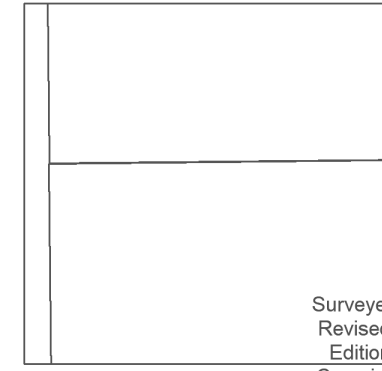
Map date: 1888-1889

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1888
Revised N/A
Edition 1889
Copyright N/A
Levelled N/A



Surveyed 1888
Revised 1888
Edition N/A
Copyright N/A
Levelled N/A

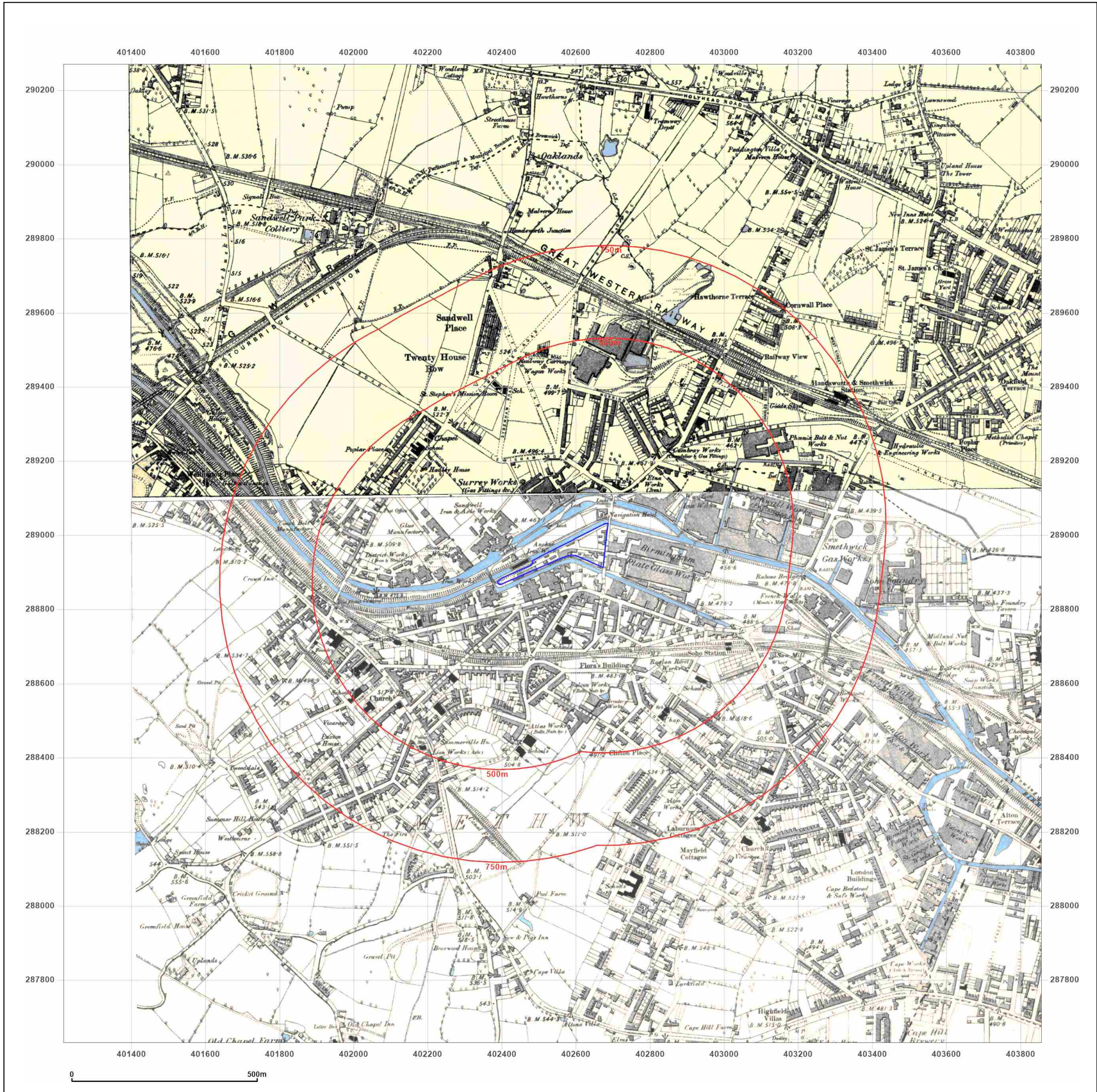


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B66 2AY

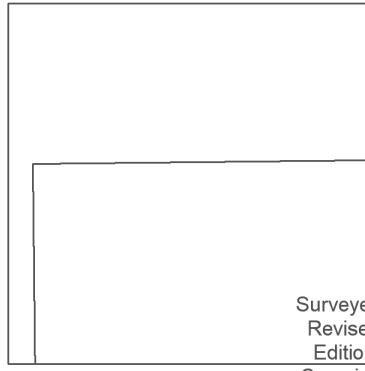
Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1889

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1888
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

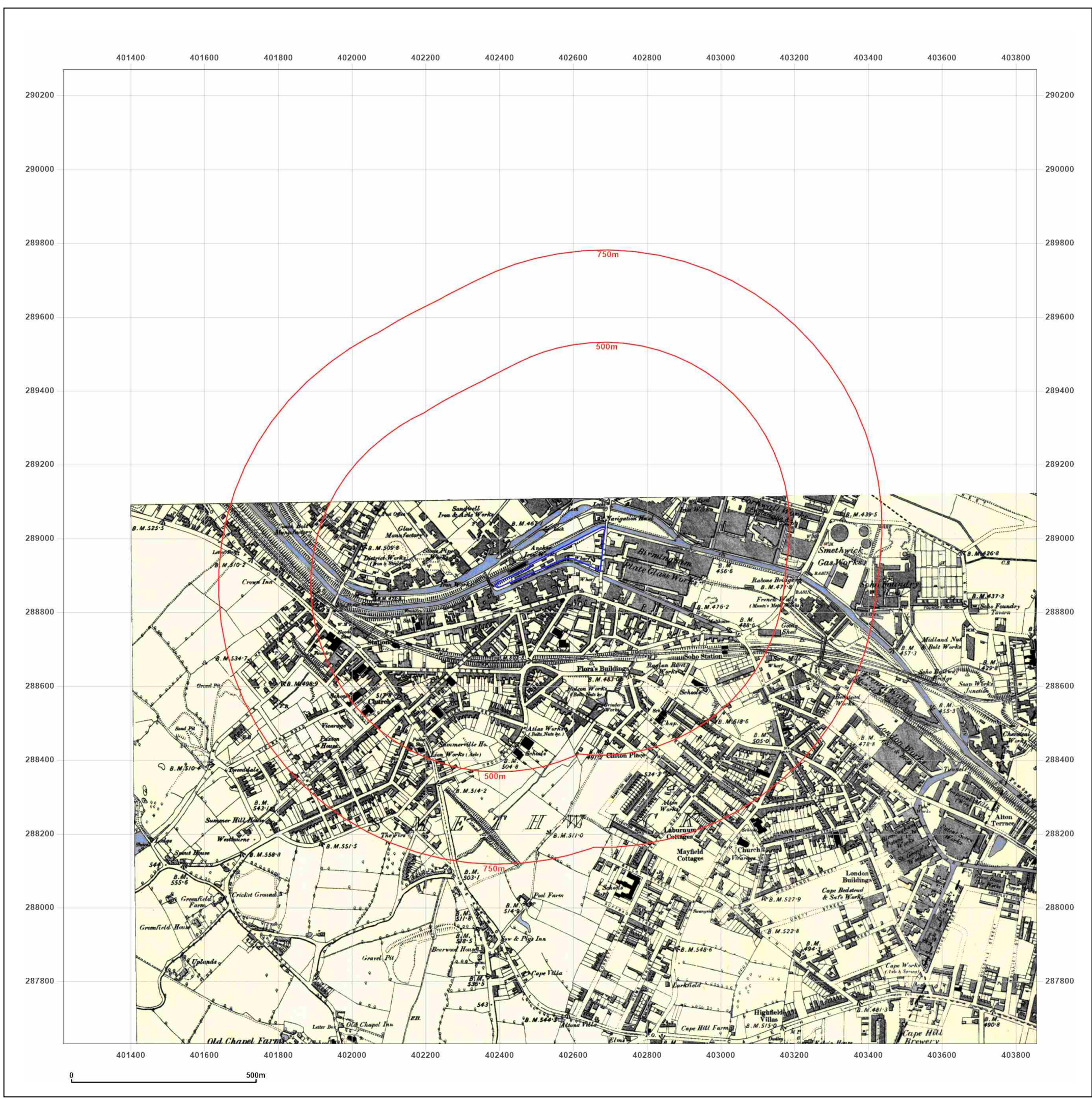


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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1902-1905

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1902
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1888
Revised 1902
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1883
Revised 1902
Edition N/A
Copyright N/A
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Surveyed 1888
Revised 1903
Edition 1905
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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1902-1905

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1902
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1888
Revised 1902
Edition 1904
Copyright N/A
Levelled N/A

Surveyed 1883
Revised 1902
Edition 1904
Copyright N/A
Levelled N/A

Surveyed 1888
Revised 1903
Edition 1905
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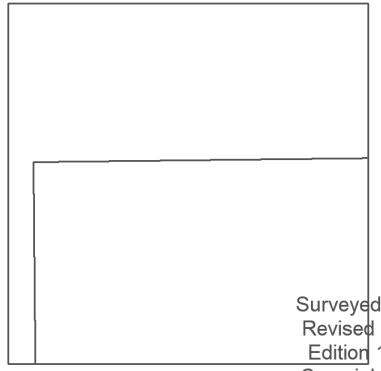
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Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1905

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1888
Revised 1903
Edition 1905
Copyright N/A
Levelled N/A

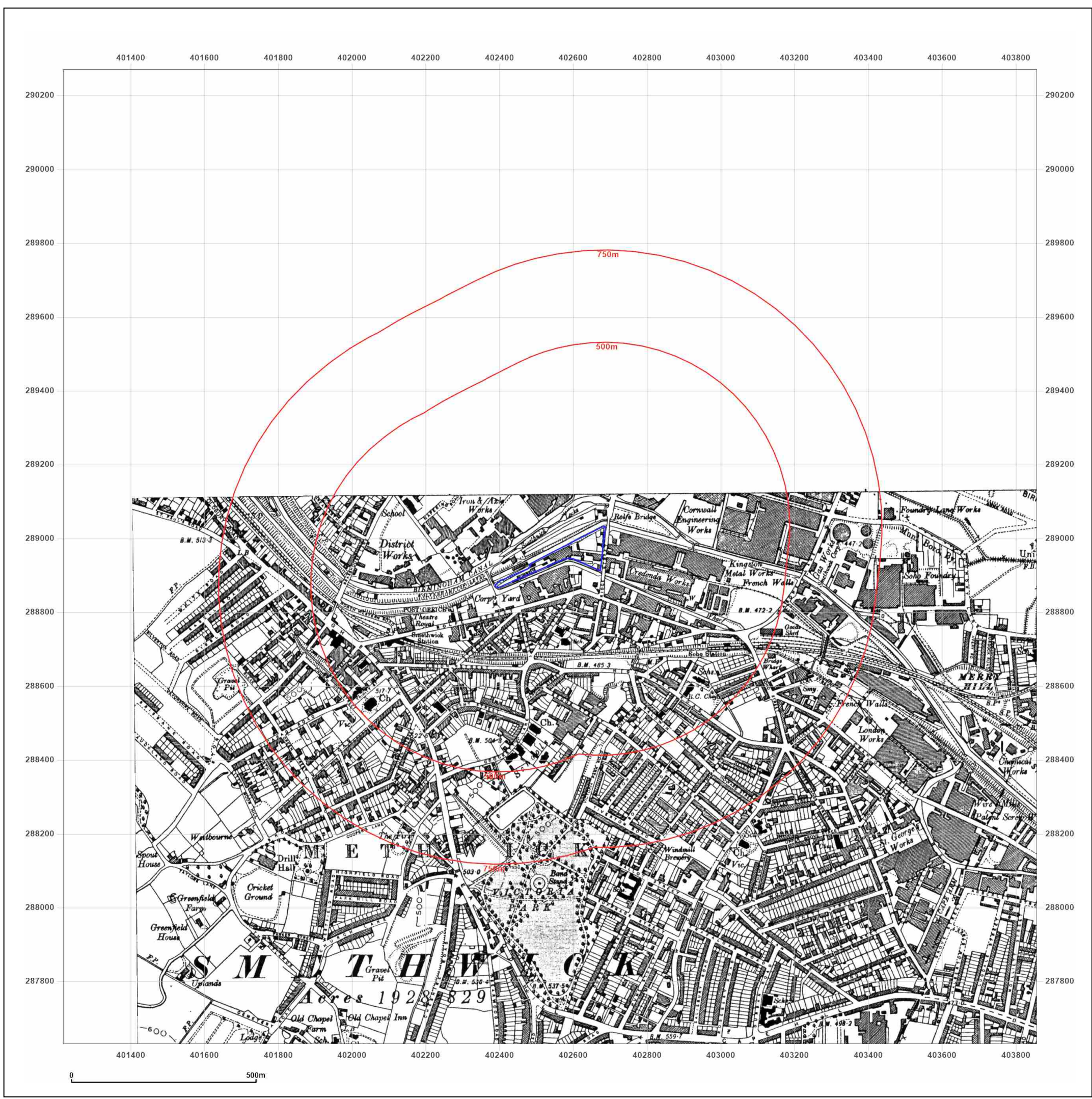


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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1913-1914

Scale: 1:10,560

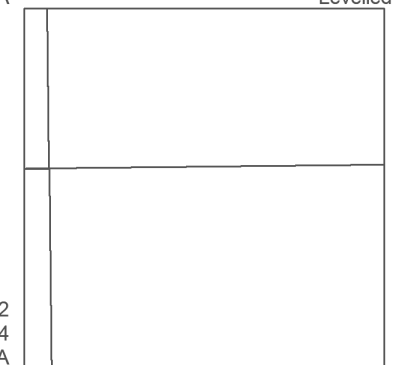
Printed at: 1:10,560



Surveyed 1886
Revised 1913
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1913
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1882
Revised 1914
Edition N/A
Copyright N/A
Levelled N/A

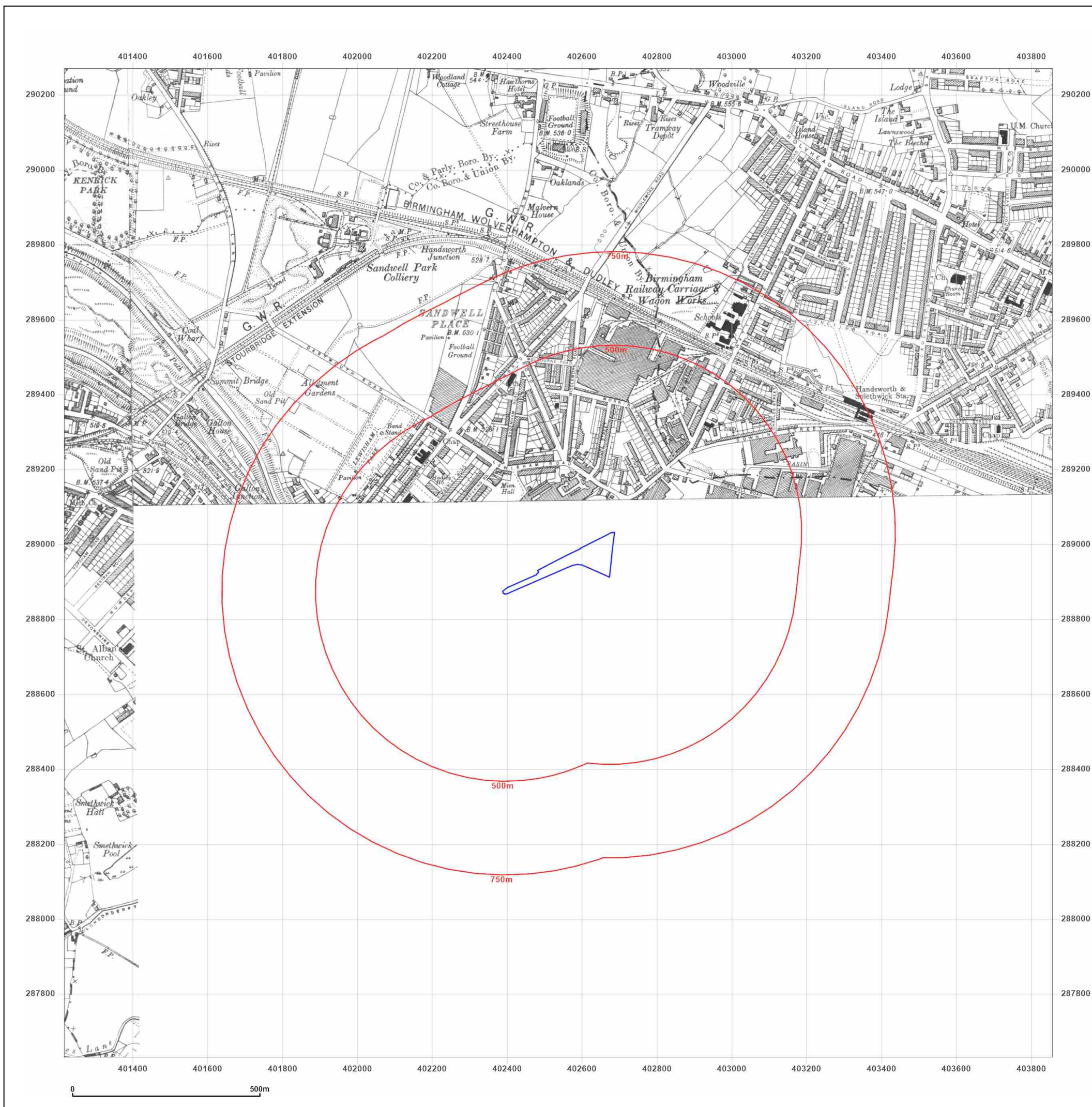


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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

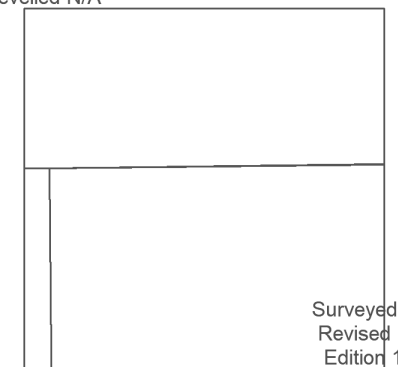
Map date: 1921

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1888
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1887
Revised 1914
Edition 1921
Copyright N/A
Levelled 1921



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B66 2AY

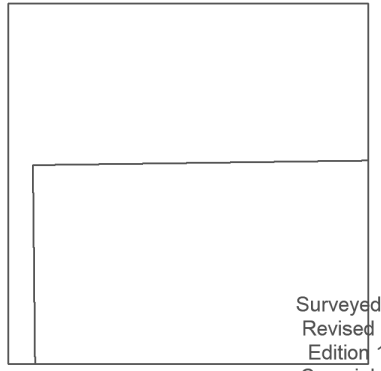
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Grid Ref: 402536, 288950

Map Name: County Series

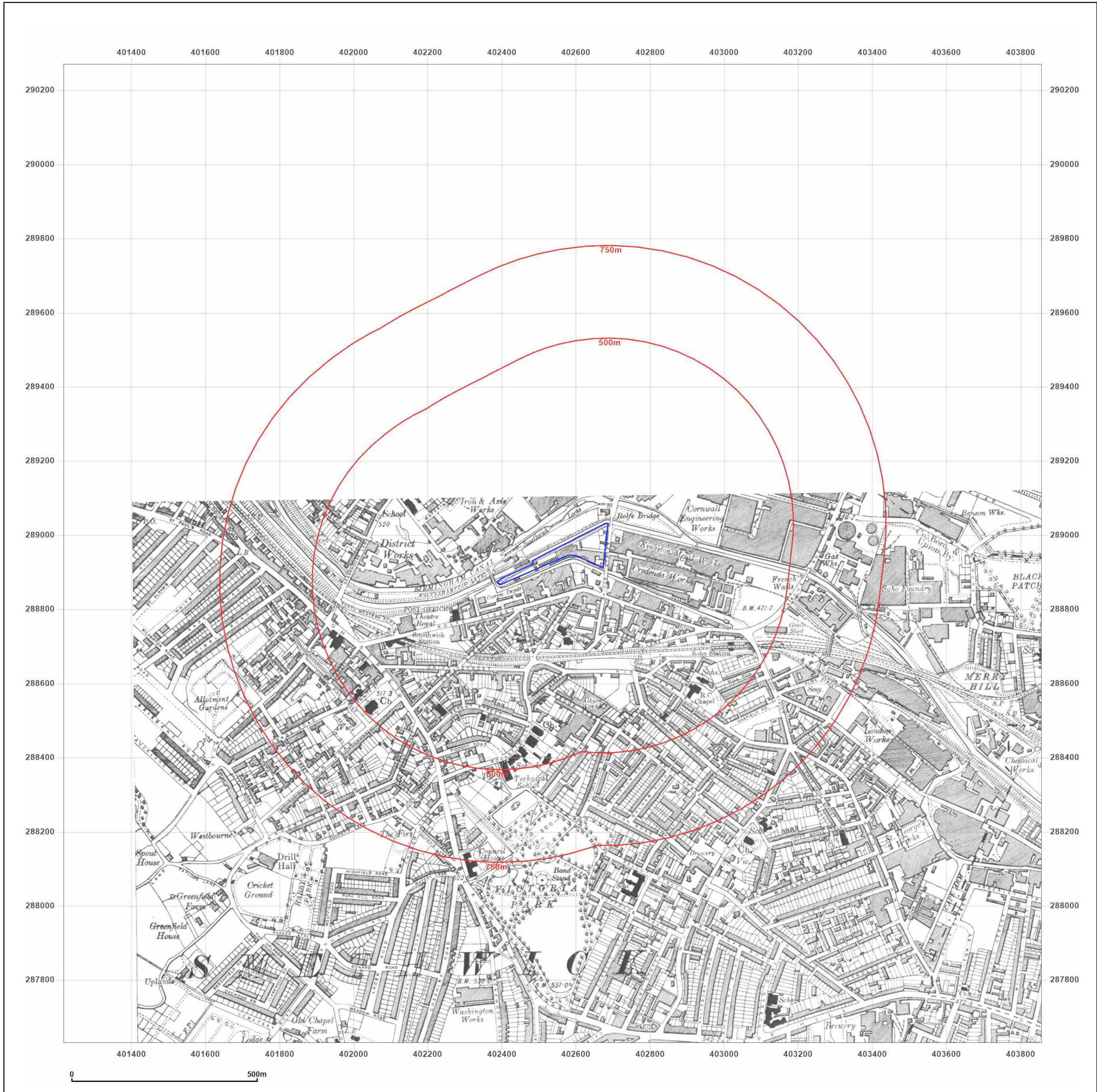
Map date: 1921

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1887
Revised 1921
Edition 1921
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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1921-1922

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1921
Edition 1921
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1913
Edition N/A
Copyright 1922
Levelled 1921

Surveyed 1887
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

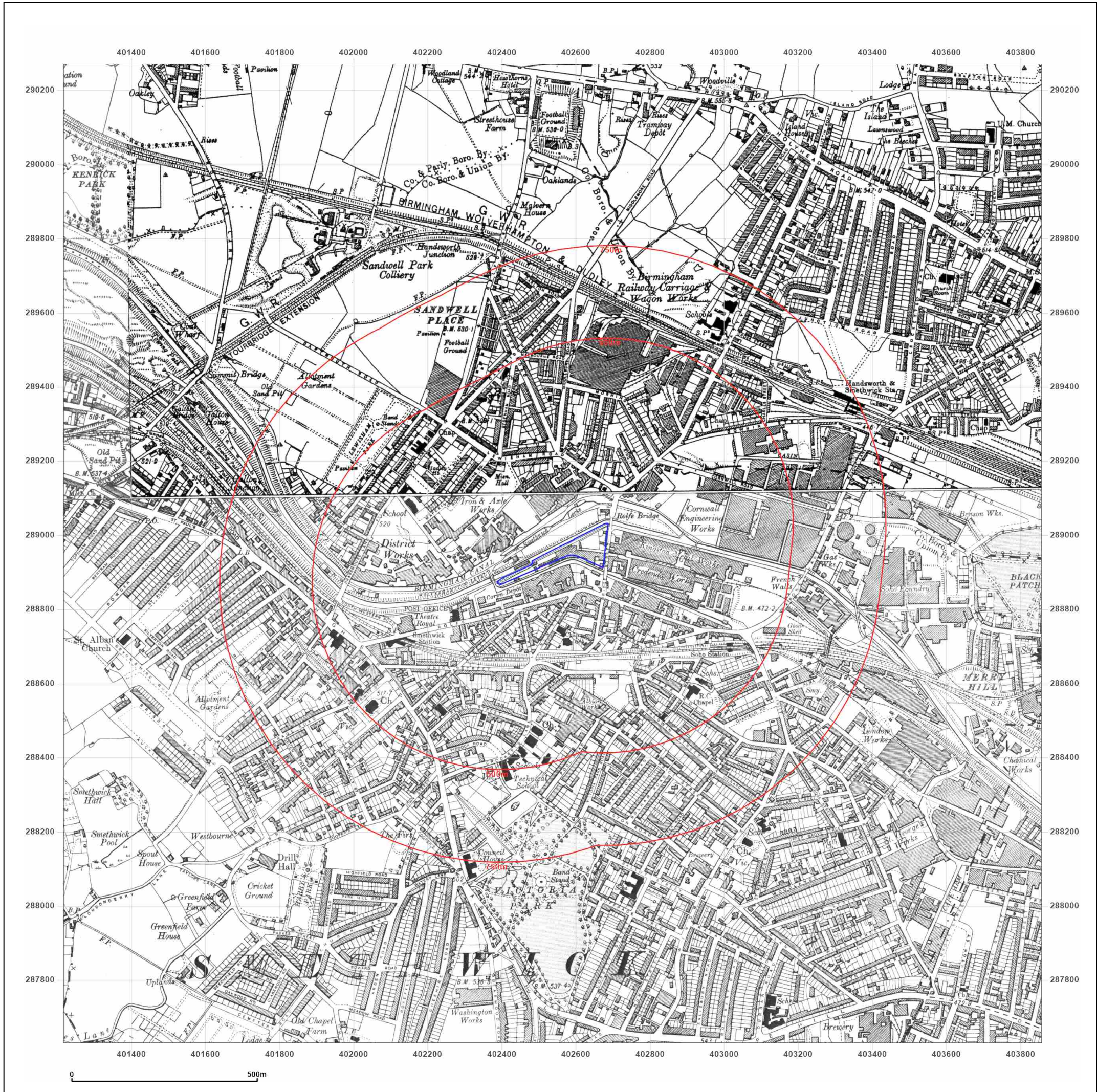


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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

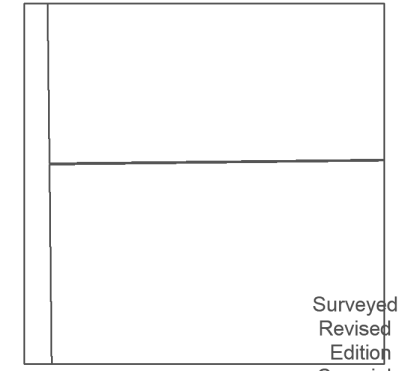
Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1938
Edition N/A
Copyright N/A
Levelled 1913



Surveyed 1887
Revised 1938
Edition N/A
Copyright N/A
Levelled 1922



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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Surveyed 1882
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1887
Revised 1938
Edition N/A
Copyright N/A
Levelled 1922

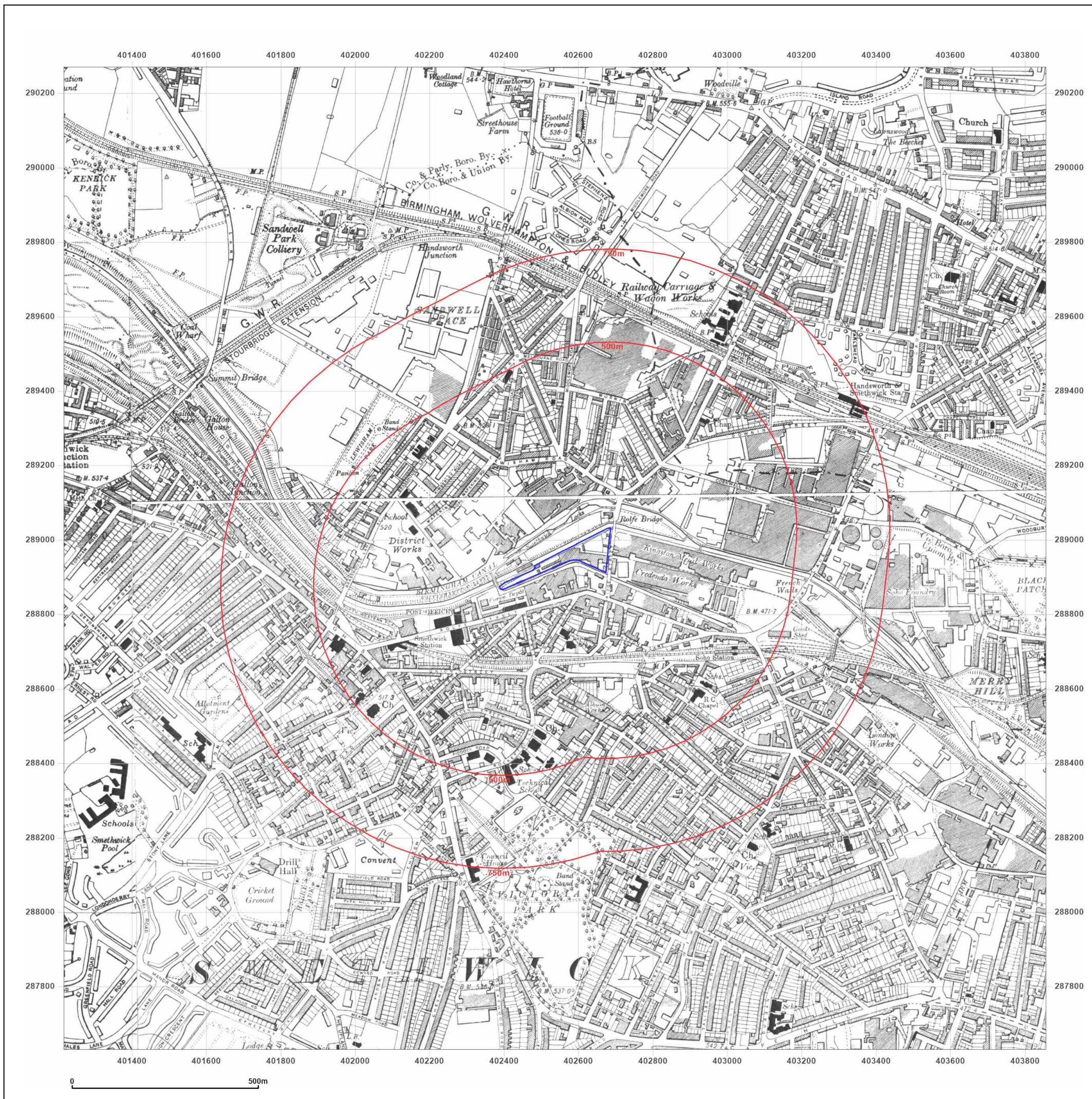


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Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1882
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1938
Edition N/A
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B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: Provisional

Map date: 1955

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised 1955
Edition 1955
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1955
Edition N/A
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Levelled N/A

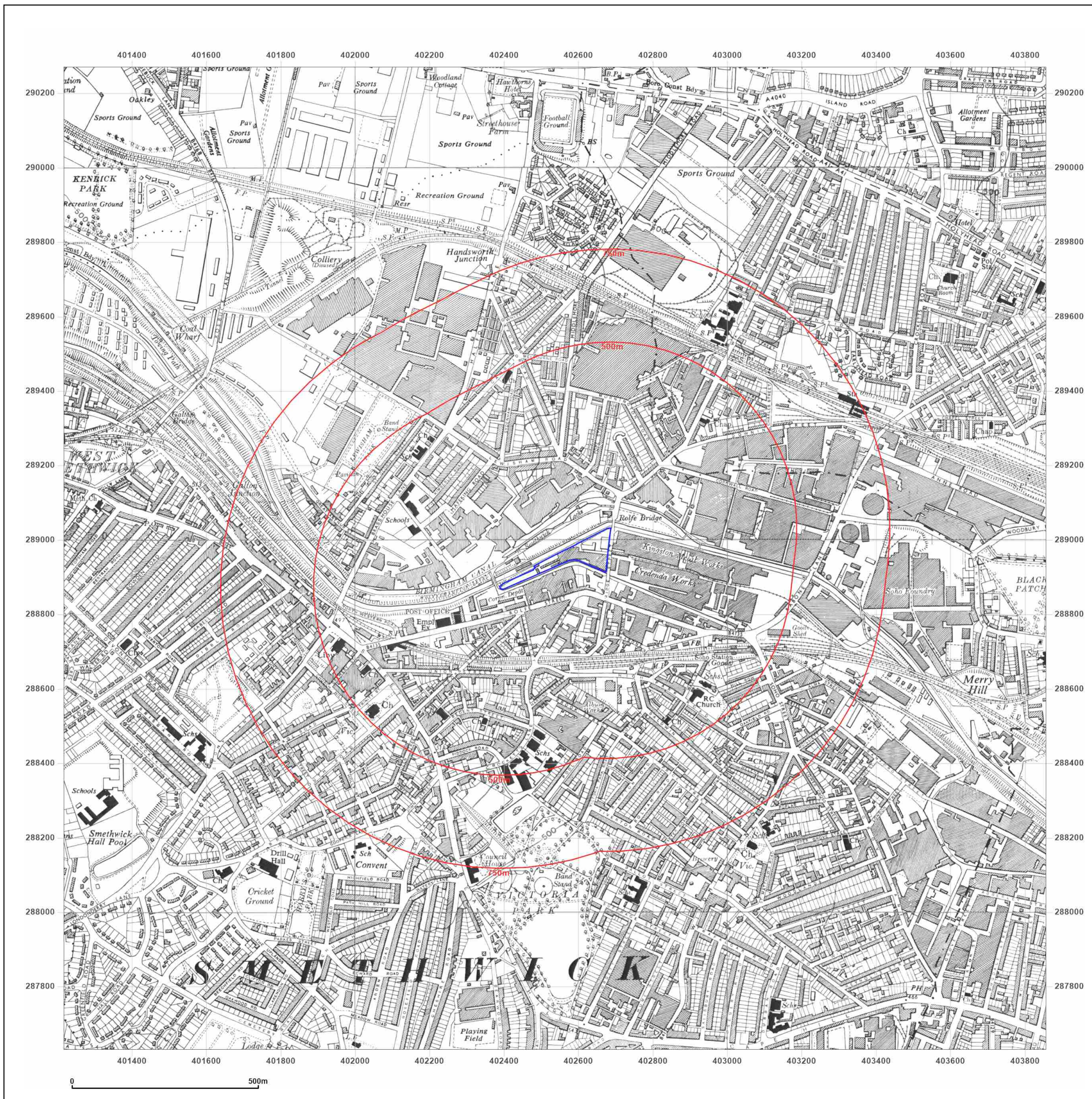


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Site Details:

BRIDGE STREET NORTH,
SMETHWICK, BIRMINGHAM,
B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: Provisional

Map date: 1966-1967

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1967
Revised 1967
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

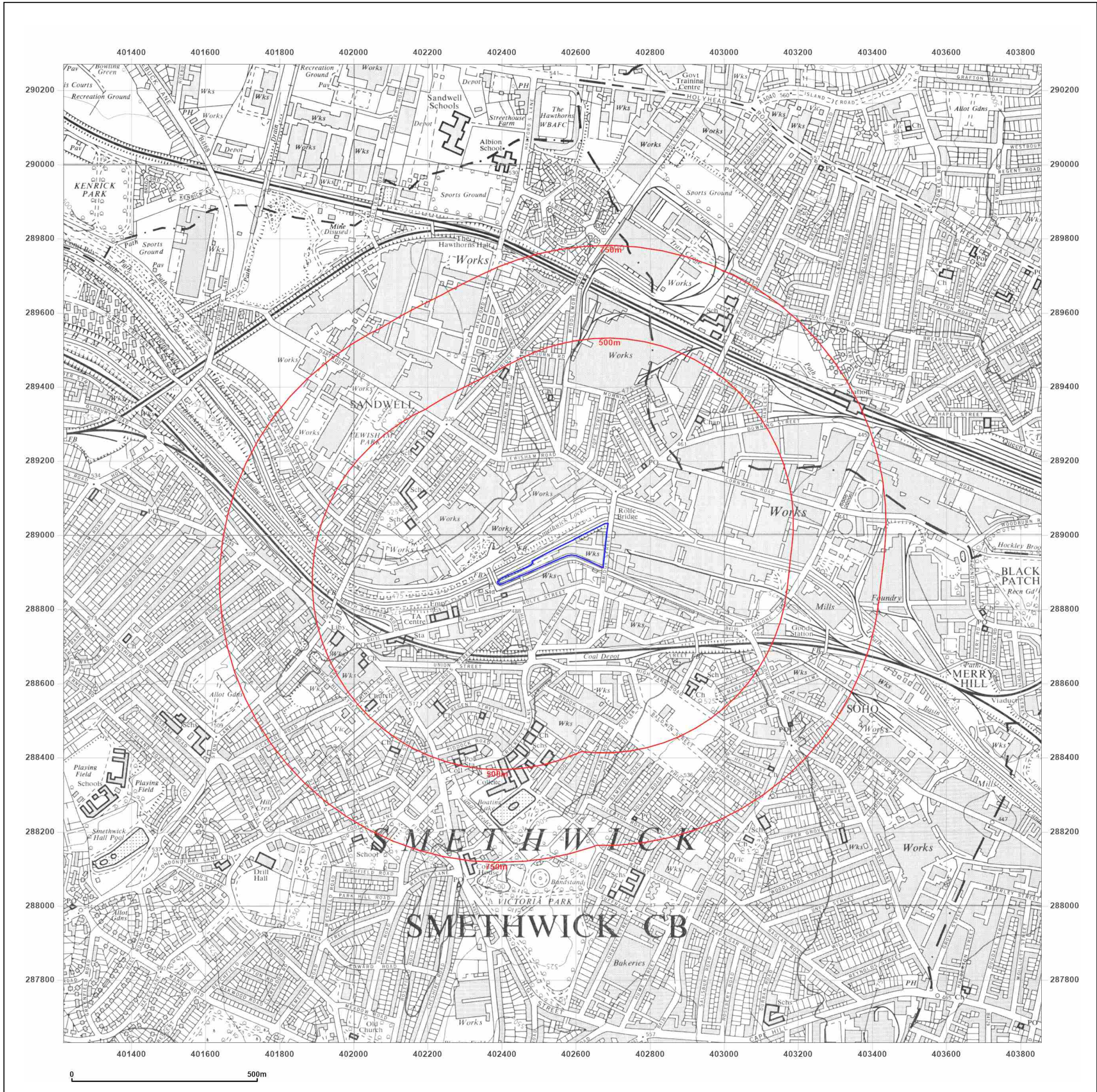


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Site Details:

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SMETHWICK, BIRMINGHAM,
B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid

Map date: 1980

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1977
Revised 1980
Edition N/A
Copyright 1980
Levelled 1978

Surveyed 1975
Revised 1980
Edition N/A
Copyright 1980
Levelled 1978

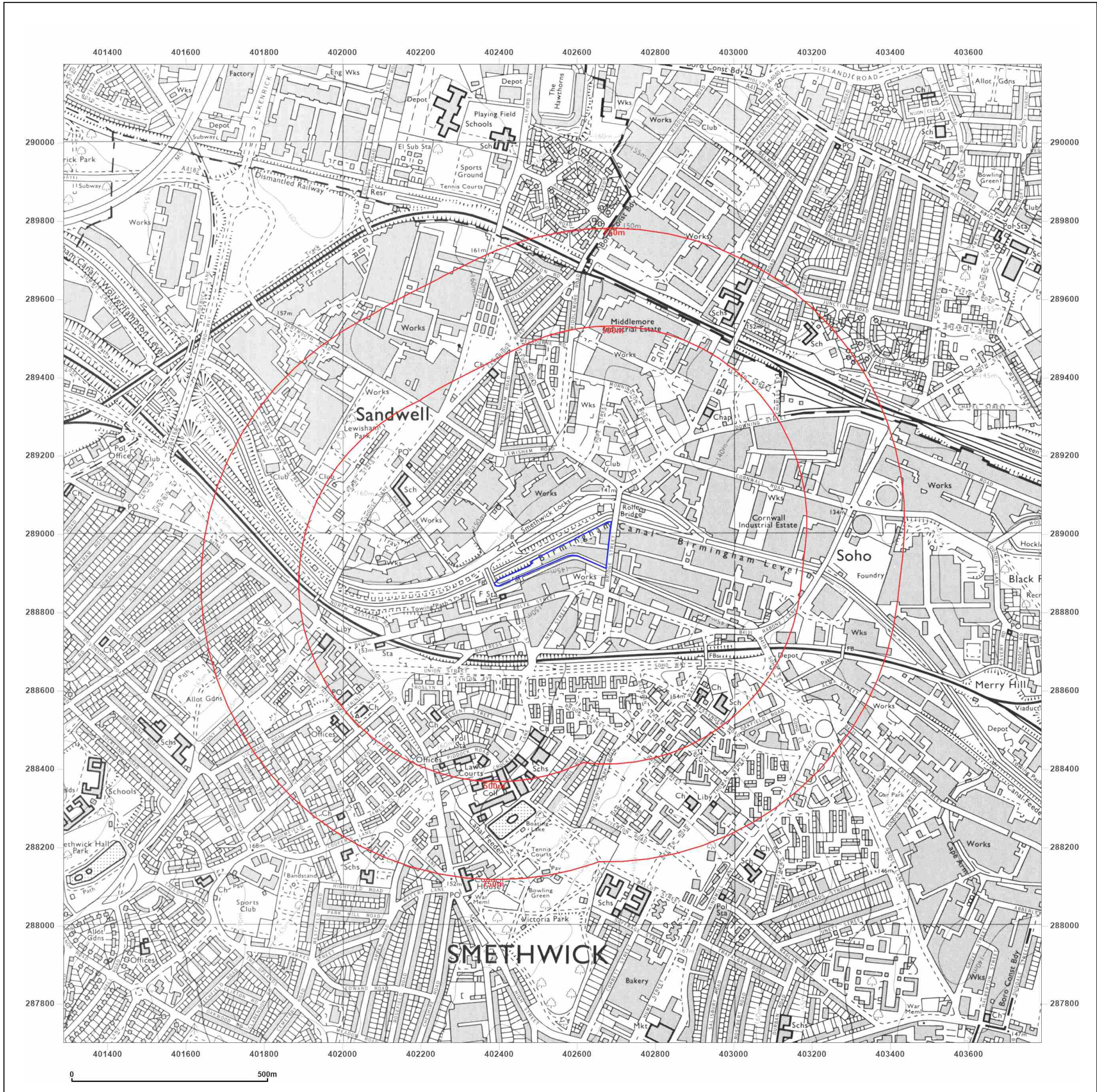


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 SMETHWICK, BIRMINGHAM,
 B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid
Map date: 1988
Scale: 1:10,000
Printed at: 1:10,000



Surveyed 1984
 Revised 1988
 Edition N/A
 Copyright N/A
 Levelled N/A

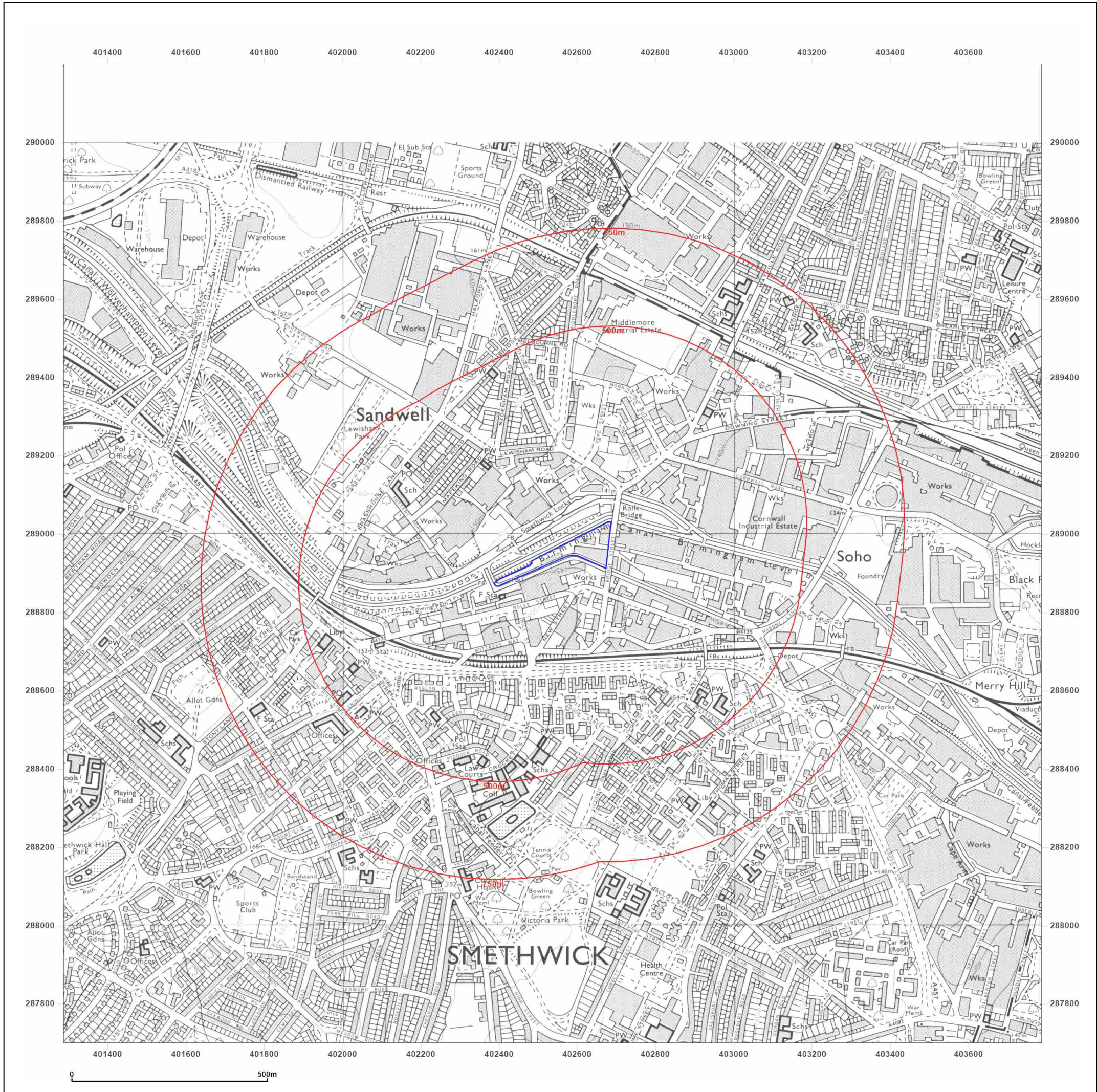
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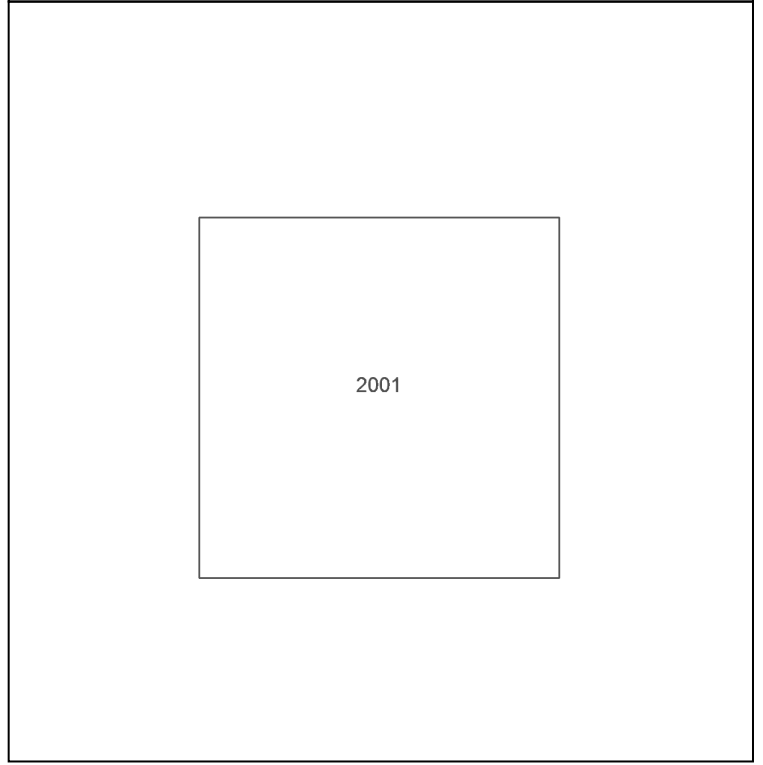
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Site Details:
 BRIDGE STREET NORTH,
 SMETHWICK, BIRMINGHAM,
 B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid
Map date: 2001
Scale: 1:10,000
Printed at: 1:10,000



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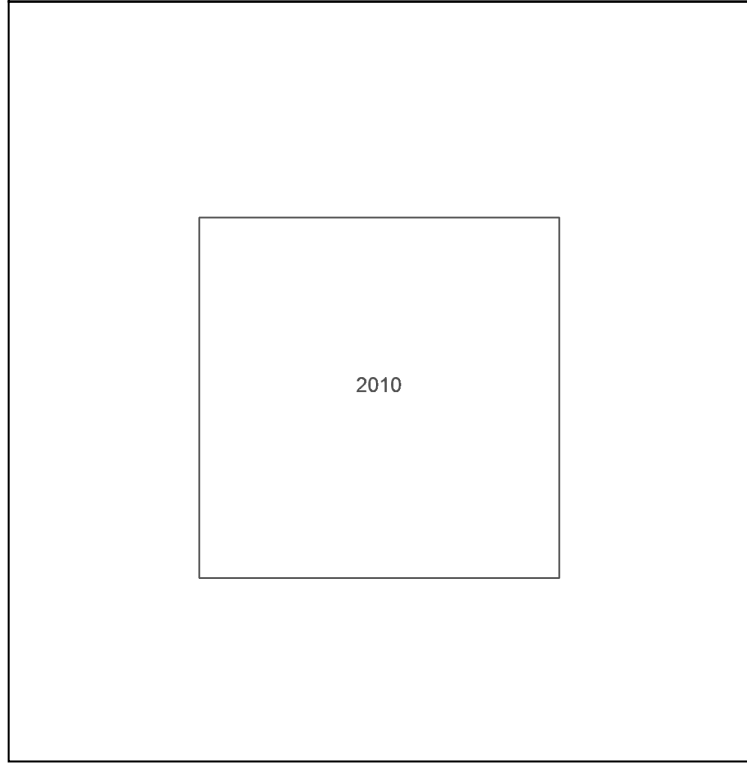
Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:
 BRIDGE STREET NORTH,
 SMETHWICK, BIRMINGHAM,
 B66 2AY

Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid
Map date: 2010
Scale: 1:10,000
Printed at: 1:10,000



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Site Details:

BRIDGE STREET NORTH,
SMETHWICK, BIRMINGHAM,
B66 2AY

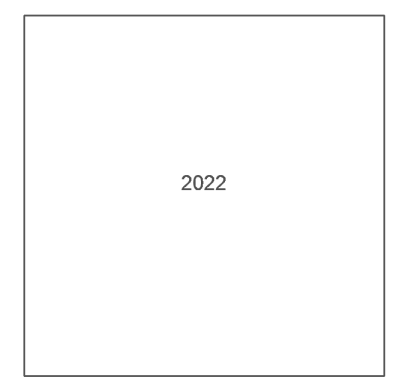
Client Ref: 10143
Report Ref: GS-8989802
Grid Ref: 402536, 288950

Map Name: National Grid

Map date: 2022

Scale: 1:10,000

Printed at: 1:10,000

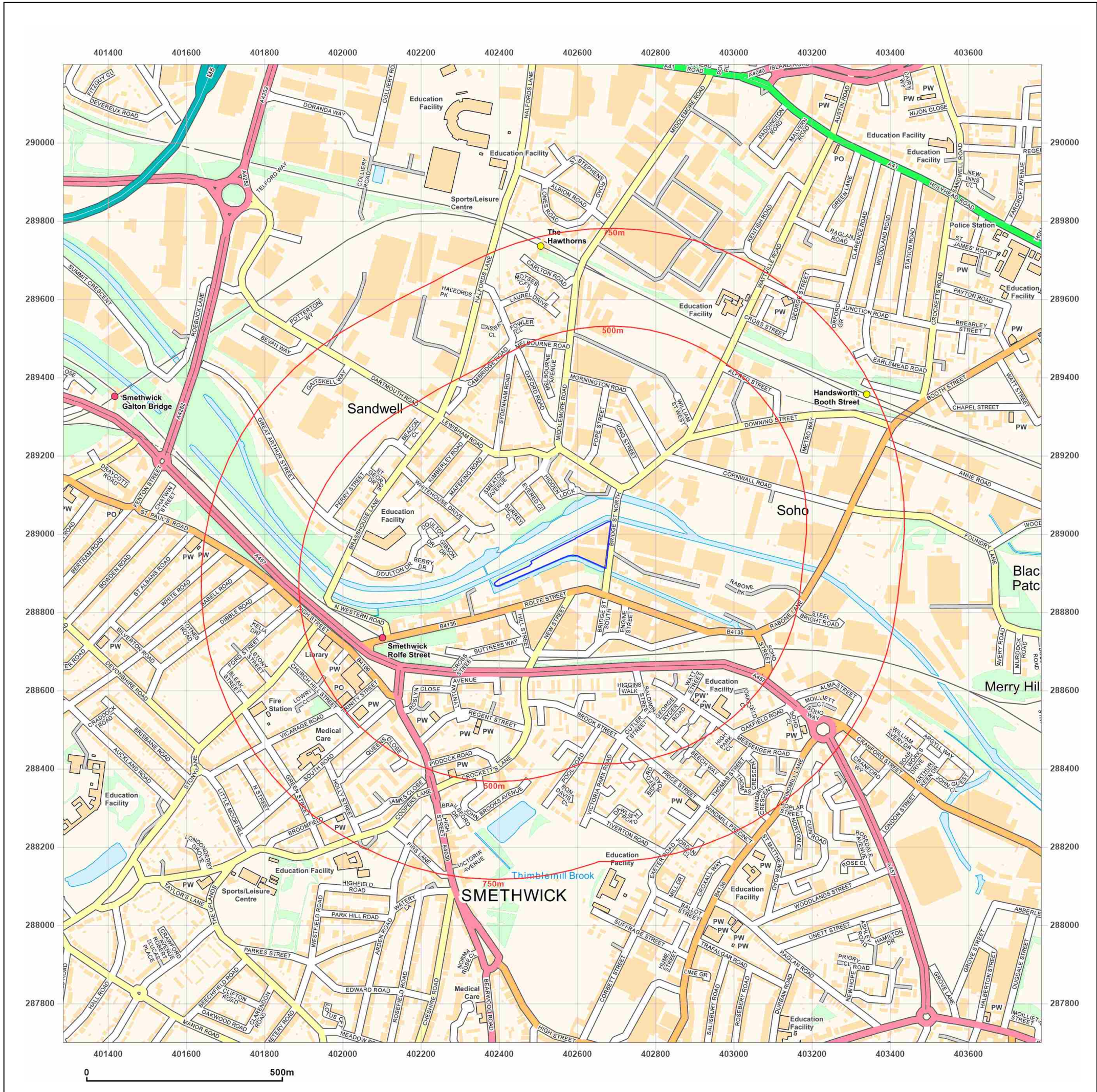


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APPENDIX B – GROUNDSURE REPORT

BRIDGE STREET NORTH, SMETHWICK, BIRMINGHAM, B66 2AY

Order Details

Date: 17/08/2022
Your ref: 10143
Our Ref: GS-8989803

Site Details

Location: 402544 288949
Area: 1.21 ha
Authority: [Sandwell Metropolitan Borough Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.13

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	<u>Historical industrial land uses</u>	5	35	121	207	-
28	1.2	<u>Historical tanks</u>	5	10	78	57	-
34	1.3	<u>Historical energy features</u>	0	4	24	30	-
36	1.4	<u>Historical petrol stations</u>	0	0	1	0	-
36	1.5	<u>Historical garages</u>	0	0	13	4	-
37	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
38	2.1	<u>Historical industrial land uses</u>	9	51	160	270	-
56	2.2	<u>Historical tanks</u>	5	15	155	84	-
66	2.3	<u>Historical energy features</u>	0	7	50	99	-
71	2.4	<u>Historical petrol stations</u>	0	0	1	0	-
72	2.5	<u>Historical garages</u>	0	0	21	6	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
74	3.1	Active or recent landfill	0	0	0	0	-
74	3.2	Historical landfill (BGS records)	0	0	0	0	-
75	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
75	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
75	3.5	<u>Historical waste sites</u>	0	1	22	9	-
80	3.6	<u>Licensed waste sites</u>	0	2	9	9	-
85	3.7	<u>Waste exemptions</u>	0	2	22	44	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
92	4.1	<u>Recent industrial land uses</u>	2	9	78	-	-
98	4.2	<u>Current or recent petrol stations</u>	0	0	1	0	-
98	4.3	Electricity cables	0	0	0	0	-
99	4.4	Gas pipelines	0	0	0	0	-
99	4.5	Sites determined as Contaminated Land	0	0	0	0	-



99	4.6	<u>Control of Major Accident Hazards (COMAH)</u>	0	0	1	0	-
99	4.7	Regulated explosive sites	0	0	0	0	-
100	4.8	<u>Hazardous substance storage/usage</u>	0	0	0	2	-
100	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
100	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	4	1	-
101	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	2	6	-
103	4.12	Radioactive Substance Authorisations	0	0	0	0	-
103	4.13	<u>Licensed Discharges to controlled waters</u>	2	1	9	20	-
108	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
108	4.15	Pollutant release to public sewer	0	0	0	0	-
108	4.16	<u>List 1 Dangerous Substances</u>	0	0	1	0	-
109	4.17	List 2 Dangerous Substances	0	0	0	0	-
109	4.18	<u>Pollution Incidents (EA/NRW)</u>	3	0	20	15	-
113	4.19	<u>Pollution inventory substances</u>	0	0	1	1	-
114	4.20	<u>Pollution inventory waste transfers</u>	0	0	1	1	-
116	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
117	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
119	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
121	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
122	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
122	5.5	Groundwater vulnerability- local information	None (within 0m)				
123	5.6	<u>Groundwater abstractions</u>	0	0	0	0	25
129	5.7	<u>Surface water abstractions</u>	0	0	1	1	1
130	5.8	Potable abstractions	0	0	0	0	0
130	5.9	<u>Source Protection Zones</u>	1	0	0	0	-
130	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
131	6.1	<u>Water Network (OS MasterMap)</u>	0	10	6	-	-



133	6.2	<u>Surface water features</u>	0	3	0	-	-
133	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
134	6.4	<u>WFD Surface water bodies</u>	1	1	0	-	-
134	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
135	7.1	<u>Risk of flooding from rivers and the sea</u>	Low (within 50m)				
136	7.2	Historical Flood Events	0	0	0	-	-
136	7.3	Flood Defences	0	0	0	-	-
136	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
136	7.5	Flood Storage Areas	0	0	0	-	-
137	7.6	<u>Flood Zone 2</u>	Identified (within 50m)				
138	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
139	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
141	9.1	<u>Groundwater flooding</u>	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
142	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
143	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
143	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
143	10.4	Special Protection Areas (SPA)	0	0	0	0	0
143	10.5	National Nature Reserves (NNR)	0	0	0	0	0
144	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
144	10.7	Designated Ancient Woodland	0	0	0	0	0
144	10.8	Biosphere Reserves	0	0	0	0	0
144	10.9	Forest Parks	0	0	0	0	0
145	10.10	Marine Conservation Zones	0	0	0	0	0
145	10.11	<u>Green Belt</u>	0	0	0	0	2
145	10.12	Proposed Ramsar sites	0	0	0	0	0



145	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
146	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
146	10.15	Nitrate Sensitive Areas	0	0	0	0	0
146	10.16	<u>Nitrate Vulnerable Zones</u>	1	0	0	0	1
147	10.17	SSSI Impact Risk Zones	0	-	-	-	-
147	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
148	11.1	World Heritage Sites	0	0	0	-	-
149	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
149	11.3	National Parks	0	0	0	-	-
149	11.4	<u>Listed Buildings</u>	0	2	5	-	-
150	11.5	<u>Conservation Areas</u>	1	0	0	-	-
150	11.6	<u>Scheduled Ancient Monuments</u>	1	1	0	-	-
151	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
152	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
153	12.2	Open Access Land	0	0	0	-	-
153	12.3	Tree Felling Licences	0	0	0	-	-
153	12.4	Environmental Stewardship Schemes	0	0	0	-	-
153	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
154	13.1	<u>Priority Habitat Inventory</u>	0	0	1	-	-
155	13.2	Habitat Networks	0	0	0	-	-
155	13.3	Open Mosaic Habitat	0	0	0	-	-
155	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
156	14.1	<u>10k Availability</u>	Identified (within 500m)				
157	14.2	<u>Artificial and made ground (10k)</u>	1	0	3	9	-
159	14.3	<u>Superficial geology (10k)</u>	1	1	4	3	-

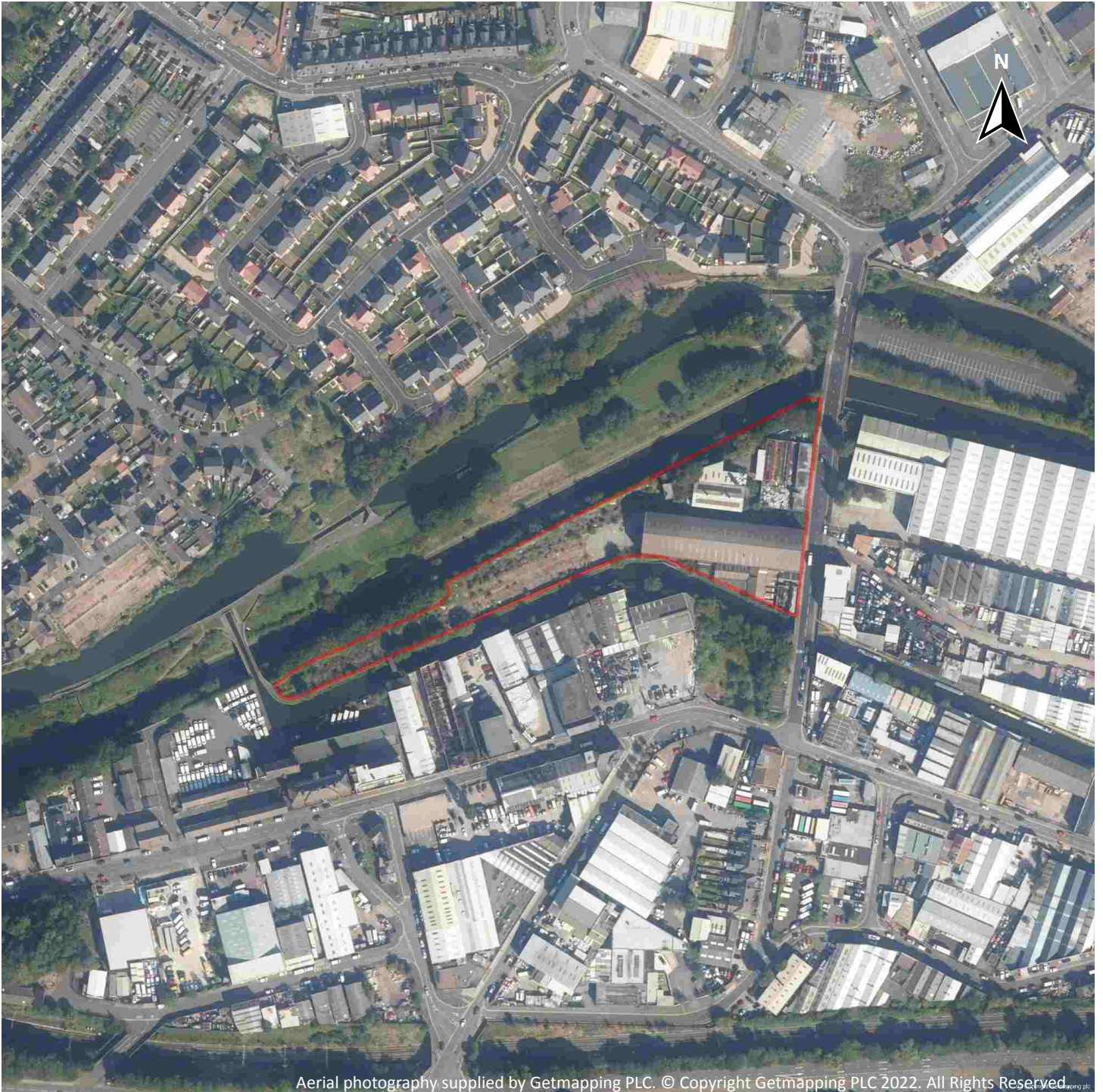


160	14.4	Landslip (10k)	0	0	0	0	-
161	14.5	<u>Bedrock geology (10k)</u>	1	0	1	2	-
162	14.6	<u>Bedrock faults and other linear features (10k)</u>	0	0	0	1	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
163	15.1	<u>50k Availability</u>	Identified (within 500m)				
164	15.2	Artificial and made ground (50k)	0	0	0	0	-
164	15.3	Artificial ground permeability (50k)	0	0	-	-	-
165	15.4	<u>Superficial geology (50k)</u>	1	1	3	5	-
166	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
166	15.6	Landslip (50k)	0	0	0	0	-
167	15.7	Landslip permeability (50k)	None (within 50m)				
168	15.8	<u>Bedrock geology (50k)</u>	1	0	1	2	-
169	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
169	15.10	<u>Bedrock faults and other linear features (50k)</u>	0	0	0	1	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
170	16.1	<u>BGS Boreholes</u>	0	5	27	-	-
Page	Section	Natural ground subsidence					
173	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
174	17.2	<u>Running sands</u>	Very low (within 50m)				
175	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
176	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
177	17.5	<u>Landslides</u>	Very low (within 50m)				
178	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
180	18.1	Natural cavities	0	0	0	0	-
181	18.2	BritPits	0	0	0	0	-
181	18.3	<u>Surface ground workings</u>	6	17	40	-	-
183	18.4	<u>Underground workings</u>	0	0	0	0	12
184	18.5	Historical Mineral Planning Areas	0	0	0	0	-



184	18.6	Non-coal mining	0	0	0	0	0
185	18.7	Mining cavities	0	0	0	0	0
185	18.8	<u>JPB mining areas</u>	Identified (within 0m)				
185	18.9	<u>Coal mining</u>	Identified (within 0m)				
186	18.10	Brine areas	None (within 0m)				
186	18.11	Gypsum areas	None (within 0m)				
186	18.12	Tin mining	None (within 0m)				
186	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
187	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
188	20.1	<u>BGS Estimated Background Soil Chemistry</u>	4	1	-	-	-
188	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
188	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
189	21.1	Underground railways (London)	0	0	0	-	-
189	21.2	Underground railways (Non-London)	0	0	0	-	-
190	21.3	Railway tunnels	0	0	0	-	-
190	21.4	<u>Historical railway and tunnel features</u>	0	6	53	-	-
192	21.5	Royal Mail tunnels	0	0	0	-	-
192	21.6	Historical railways	0	0	0	-	-
193	21.7	<u>Railways</u>	0	0	8	-	-
193	21.8	Crossrail 1	0	0	0	0	-
193	21.9	Crossrail 2	0	0	0	0	-
194	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 14/09/2019

Site Area: 1.21ha



Recent site history - 2016 aerial photograph



Capture Date: 06/05/2016

Site Area: 1.21ha



Recent site history - 2013 aerial photograph

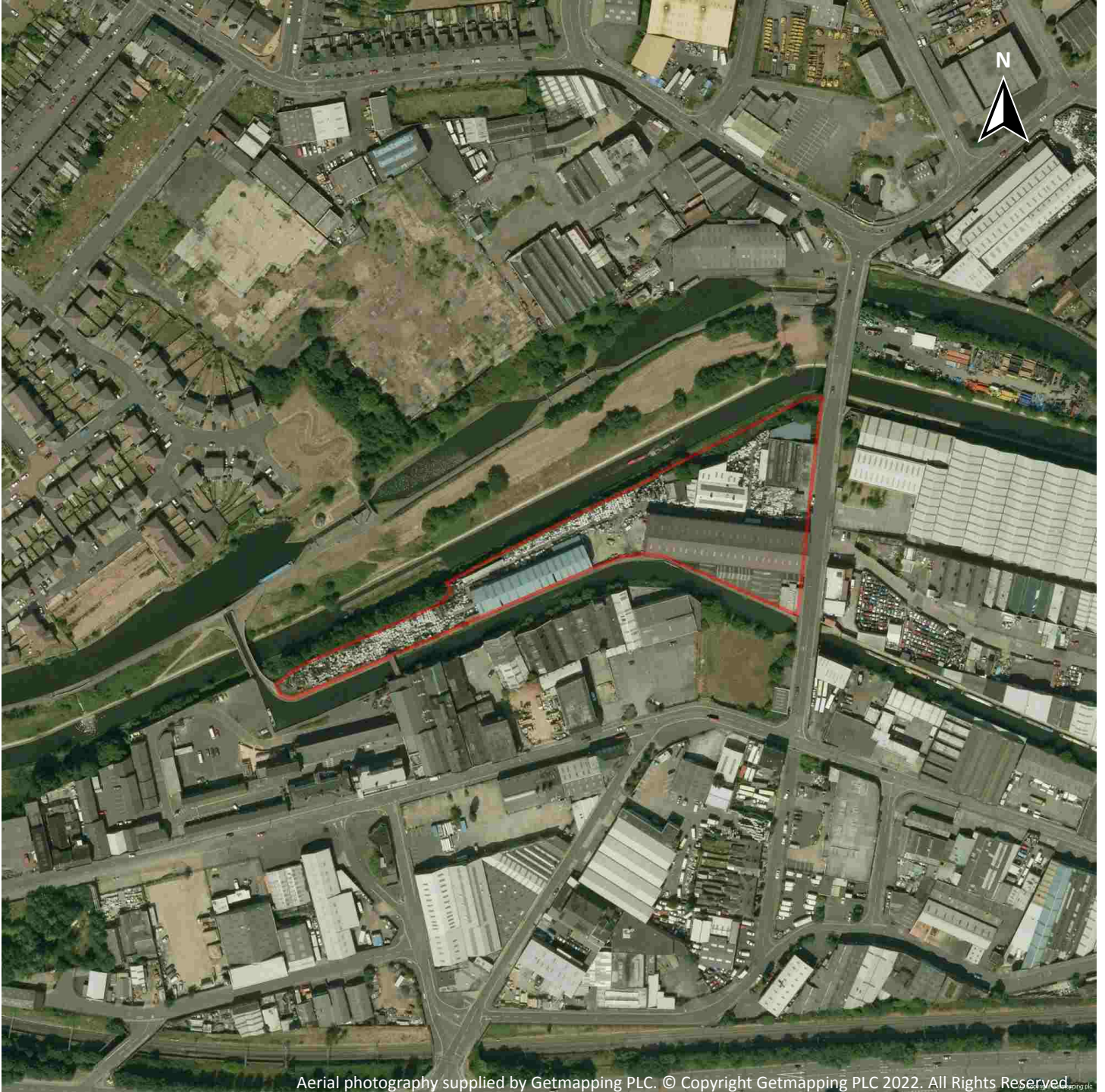


Capture Date: 09/07/2013

Site Area: 1.21ha



Recent site history - 2006 aerial photograph



Capture Date: 16/07/2006

Site Area: 1.21ha



Recent site history - 1999 aerial photograph

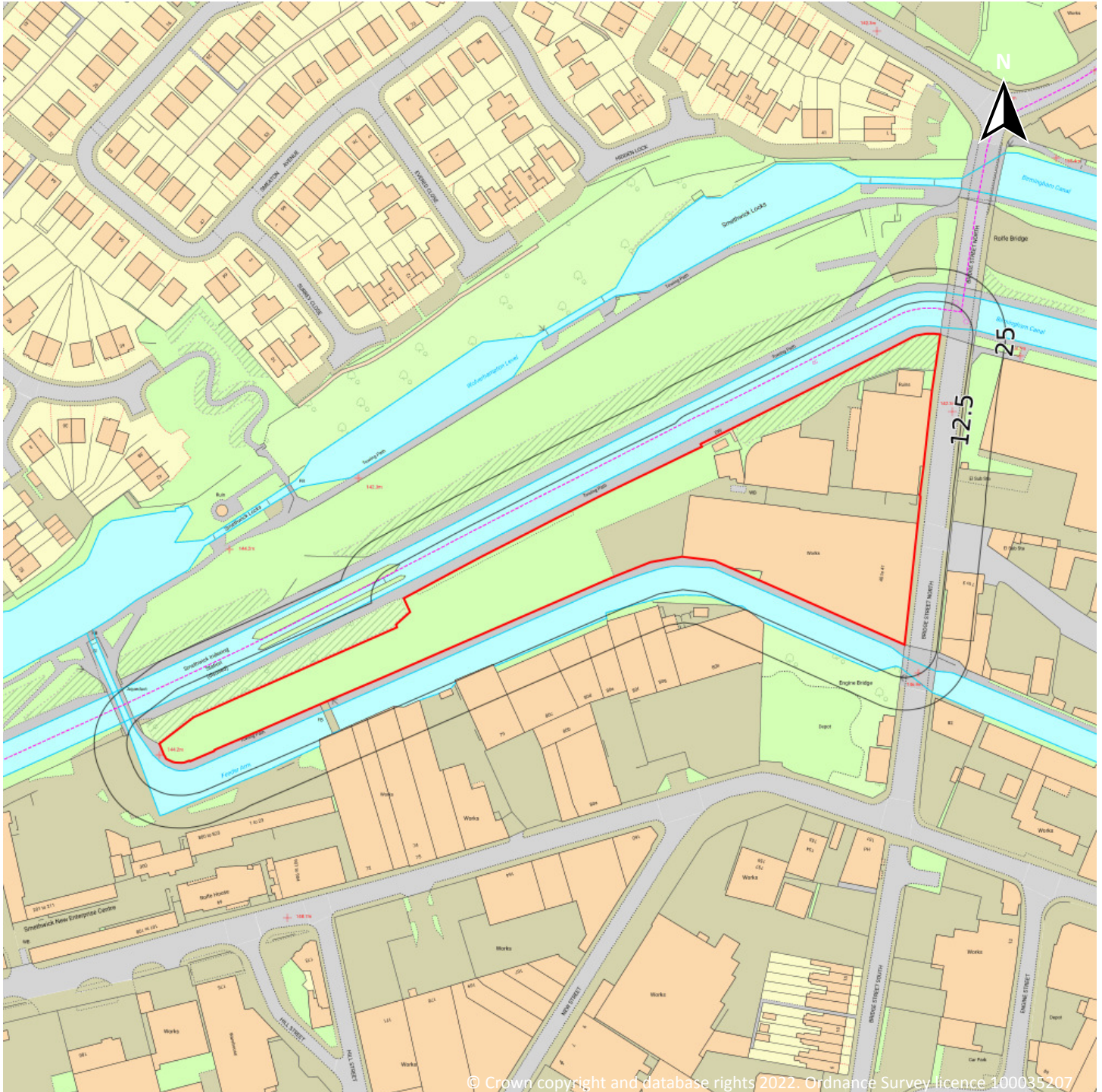


Capture Date: 25/06/1999

Site Area: 1.21ha



OS MasterMap site plan

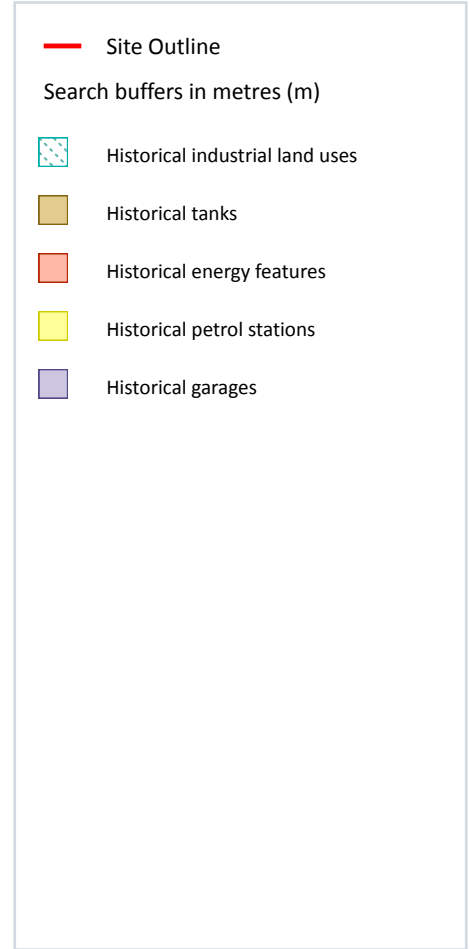
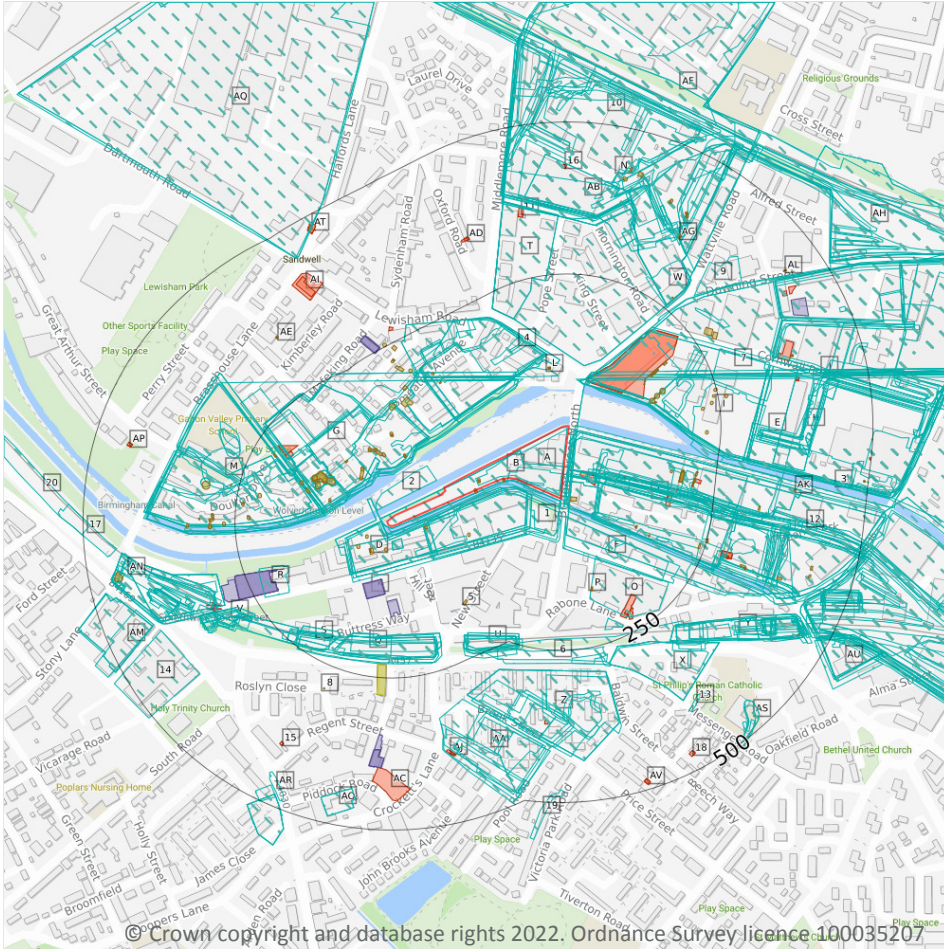


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Site Area: 1.21ha



1 Past land use



1.1 Historical industrial land uses

Records within 500m **368**

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Works	1966	1771107

ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Wharf	1888 - 1889	1787173
B	On site	Iron Works	1888 - 1889	1802674
B	On site	Unspecified Commercial/Industrial	1903 - 1904	1823045
B	On site	Unspecified Commercial/Industrial	1938	1839209
B	3m SE	Unspecified Commercial/Industrial	1888	1809523
B	3m SE	Corporation Depot	1938	1809863
C	6m E	Plate Glass Works	1888 - 1889	1809772
C	7m E	Unspecified Works	1921 - 1955	1797763
C	7m E	Metal Works	1921 - 1955	1848780
C	8m E	Unspecified Works	1938	1800426
C	8m E	Metal Works	1921 - 1938	1820644
C	8m E	Metal Works	1921	1808786
C	8m E	Unspecified Works	1921	1845797
C	8m E	Metal Works	1903 - 1904	1790711
D	9m SW	Corporation Yard	1921 - 1938	1781110
D	9m SW	Corporation Yard	1903	1842646
C	9m E	Unspecified Works	1904	1810753
B	10m S	Corporation Depot	1938 - 1955	1841596
C	11m E	Unspecified Works	1903	1811467
B	11m SE	Unspecified Works	1988	1827162
B	11m SE	Unspecified Works	1966 - 1978	1834859
1	12m S	Unspecified Wharf	1888 - 1889	1825365
C	13m E	Metal Works	1938	1802075
C	14m E	Unspecified Works	1903	1816013
E	14m E	Industrial Estate	1978	1817122
E	14m E	Industrial Estate	1988	1823798
B	14m SE	Unspecified Commercial/Industrial	1889 - 1903	1793260
B	14m SE	Unspecified Commercial/Industrial	1921	1802387



ID	Location	Land use	Dates present	Group ID
D	15m SW	Iron Works	1889	1767086
B	17m SE	Corporation Depot	1921	1818806
2	17m NW	Iron Works	1888	1767085
B	20m SE	Corporation Yard	1904	1802486
B	24m SE	Railway Sidings	1889	1751116
D	24m S	Fire Station	1966 - 1978	1808139
D	24m S	Fire Station	1988	1819091
F	31m S	Unspecified Commercial/Industrial	1904	1844295
F	31m S	Unspecified Commercial/Industrial	1921	1786745
C	39m E	Railway Sidings	1888	1804704
C	47m E	Railway Sidings	1966	1850304
C	52m E	Railway Sidings	1889	1842161
C	54m E	Railway Sidings	1903 - 1938	1784444
C	54m E	Railway Sidings	1955	1823092
C	58m SE	Unspecified Works	1921	1785811
C	59m E	Railway Sidings	1904	1784231
C	60m E	Railway Sidings	1903	1829839
G	63m NW	Unspecified Commercial/Industrial	1938	1816072
G	63m NW	Iron and Axle Works	1921	1811733
G	64m NW	Iron and Axle Works	1904	1792224
G	68m NW	Sandwell Iron And Axle Works	1889	1775096
C	68m E	Railway Sidings	1938	1815582
G	69m NW	Iron and Axle Works	1903	1809007
G	69m NW	Iron and Axle Works	1921	1830007
G	72m NW	Iron and Axle Works	1888	1824272
H	73m N	Engineering Works	1921	1810123
G	73m NW	Iron and Axle Works	1921	1804644
H	73m N	Unspecified Commercial/Industrial	1938	1794993



ID	Location	Land use	Dates present	Group ID
I	73m N	Engineering Works	1903	1797338
I	73m N	Iron Works	1888 - 1889	1824802
H	74m NE	Unspecified Commercial/Industrial	1938	1824440
G	75m NW	Unspecified Works	1988	1818437
G	75m NW	Unspecified Works	1978	1824045
I	75m NE	Unspecified Commercial/Industrial	1904	1792067
G	76m NW	Pipe Works	1889	1758349
G	77m NW	Stoneware Pipe Works	1888	1751361
G	79m NW	Unspecified Works	1966	1771106
J	81m N	Unspecified Works	1966	1828672
J	81m N	Unspecified Commercial/Industrial	1938 - 1955	1828772
G	82m NW	Railway Sidings	1888 - 1889	1848520
G	82m NW	Unspecified Commercial/Industrial	1903 - 1904	1826810
G	83m N	Unspecified Works	1888	1790328
3	84m E	Railway Sidings	1921	1812867
I	87m NE	Unspecified Commercial/Industrial	1903	1790345
I	87m NE	Unspecified Commercial/Industrial	1913 - 1921	1830579
G	88m NW	Gas Fittings Works	1889	1760407
G	89m NW	Unspecified Works	1966	1819753
G	90m NW	Unspecified Works	1978	1795106
G	90m NW	Unspecified Works	1988	1846343
G	91m NW	Unspecified Commercial/Industrial	1921	1841192
G	92m NW	Unspecified Commercial/Industrial	1921	1800805
G	93m NW	Unspecified Commercial/Industrial	1903	1799996
G	93m NW	Unspecified Commercial/Industrial	1938	1824009
M	101m W	Unspecified Works	1921	1791093
M	101m W	Unspecified Works	1903 - 1904	1805571
G	102m NW	Unspecified Tanks	1921	1796541



ID	Location	Land use	Dates present	Group ID
M	102m W	Unspecified Works	1921	1786540
M	102m W	Unspecified Works	1921	1824797
M	102m W	Unspecified Works	1938	1824216
N	102m N	Industrial Estate	1988	1787102
N	102m N	Industrial Estate	1978	1817001
G	104m NW	Unspecified Tank	1904	1768124
G	106m NW	Unspecified Tanks	1903	1797784
G	106m NW	Unspecified Tanks	1921	1838766
G	107m N	Unspecified Commercial/Industrial	1913 - 1921	1846708
G	107m NW	Unspecified Commercial/Industrial	1938	1806278
C	108m E	Railway Sidings	1921 - 1938	1804517
M	109m W	Unspecified Works	1938	1798928
M	109m W	Unspecified Works	1903	1815304
M	109m W	Iron and Steel Works	1888 - 1889	1845257
M	109m W	Unspecified Works	1938	1805055
F	109m SE	Railway Sidings	1921	1751115
G	110m NW	Unspecified Works	1902	1814825
G	110m NW	Unspecified Works	1902	1836496
O	113m SE	Unspecified Works	1966	1771101
G	116m NW	Unspecified Tank	1904	1768125
G	116m NW	Unspecified Tanks	1888 - 1903	1798779
G	120m NW	Unspecified Works	1966	1788100
G	121m NW	Unspecified Tank	1904	1768122
G	126m NW	Unspecified Tank	1904	1768128
G	128m NW	Gas Fittings Works	1889	1760406
M	129m W	Unspecified Works	1978	1793025
M	129m W	Unspecified Works	1988	1822323
G	131m NW	Unspecified Tank	1904	1768126



ID	Location	Land use	Dates present	Group ID
H	133m E	Engineering Works	1904	1819178
H	134m E	Engineering Works	1921	1811257
4	148m NW	Unspecified Ground Workings	1889	1754306
G	155m NW	Unspecified Tank	1978	1768130
J	159m E	Railway Sidings	1888 - 1903	1827558
I	160m E	Unspecified Tank	1955	1768132
I	160m E	Railway Sidings	1889	1813809
G	165m NW	Glue Manufactory	1888 - 1889	1845107
C	170m E	Unspecified Pit	1888	1776348
Q	179m S	Cuttings	1889 - 1903	1781482
Q	179m S	Cuttings	1921 - 1938	1813229
R	179m SW	Unspecified Foundry	1888 - 1889	1828533
Q	181m S	Cuttings	1966	1830778
Q	182m S	Cuttings	1888	1807221
Q	184m S	Cuttings	1938	1785214
Q	184m S	Cuttings	1978 - 1988	1796631
Q	184m S	Cuttings	1955	1836308
Q	189m S	Cuttings	1921	1838798
Q	191m S	Cuttings	1938	1805942
I	194m NE	Unspecified Works	1902	1850204
Q	194m S	Cuttings	1904	1822898
S	194m SW	Cuttings	1903	1801433
S	194m SW	Cuttings	1921	1837631
T	195m NW	Unspecified Works	1988	1797624
T	195m NW	Unspecified Works	1978	1823331
S	203m SW	Cuttings	1888	1809908
S	203m SW	Cuttings	1921 - 1938	1819875
M	206m W	Railway Sidings	1921	1805745



ID	Location	Land use	Dates present	Group ID
S	207m SW	Cuttings	1903	1834613
I	208m NE	Railway Sidings	1889	1796000
U	210m SE	Cuttings	1903	1795646
U	210m SE	Cuttings	1921	1843316
U	211m SE	Cuttings	1903 - 1904	1815385
U	211m SE	Cuttings	1921 - 1955	1833344
U	211m SE	Cuttings	1888	1835413
O	212m S	Smithy	1888 - 1889	1802311
U	213m SE	Cuttings	1938	1812851
M	216m W	Railway Sidings	1921	1805699
U	218m SE	Cuttings	1889	1820204
U	221m SE	Cuttings	1921	1794342
V	225m SW	Railway Station	1921	1799389
V	225m SW	Railway Station	1903 - 1904	1817647
O	231m S	Railway Sidings	1955 - 1966	1798735
V	232m SW	Railway Station	1938	1801054
C	239m SE	Malthouse	1888 - 1889	1785689
6	243m SE	Coal Depot	1966	1750940
M	246m W	Unspecified Heap	1889	1833231
M	248m W	Unspecified Works	1966	1836727
7	253m E	Unspecified Works	1902	1831094
W	253m NE	Chandelier and Gas Fittings Works	1889	1774174
N	256m NE	Railway Sidings	1913 - 1921	1809167
N	256m NE	Railway Sidings	1889 - 1902	1815662
N	256m NE	Railway Carriage and Wagon Works	1938	1819549
N	256m NE	Railway Carriage and Wagon Works	1902	1825879
N	256m NE	Railway Carriage and Wagon Works	1888	1836498
N	256m NE	Railway Carriage and Wagon Works	1913	1842249



ID	Location	Land use	Dates present	Group ID
X	261m S	Unspecified Commercial/Industrial	1903	1803897
X	261m S	Unspecified Commercial/Industrial	1938	1821701
X	261m S	Rivet Works	1888	1829244
O	263m S	Railway Buildings	1955	1773312
M	266m NW	Unspecified Heap	1921	1824889
O	267m S	Unspecified Ground Workings	1904	1754303
M	268m NW	Unspecified Heap	1921	1811833
V	270m SW	Railway Station	1921 - 1966	1842546
M	271m NW	Unspecified Heap	1921	1845440
V	271m SW	Railway Station	1921	1844758
C	271m E	Unspecified Wharf	1888 - 1889	1805361
V	271m SW	Railway Station	1889 - 1903	1840685
V	273m SW	Railway Station	1938	1845252
V	274m SW	Railway Station	1888	1823679
C	276m SE	Unspecified Wharf	1904	1841610
C	279m SE	Unspecified Wharf	1903	1842515
C	281m E	Unspecified Wharf	1903	1850672
X	281m SE	Cuttings	1921 - 1955	1784031
X	281m SE	Cuttings	1903 - 1904	1791257
X	281m SE	Cuttings	1888	1793615
Y	281m SE	Cuttings	1903	1800418
Y	281m SE	Cuttings	1921	1824984
I	283m NE	Gravel Pit	1913	1757807
Z	283m S	Unspecified Commercial/Industrial	1903	1752843
Z	283m S	Bolt and Nut Works	1888	1757466
Z	283m S	Unspecified Works	1938	1797048
X	285m SE	Cuttings	1889	1788864
C	289m E	Cuttings	1888 - 1889	1790770



ID	Location	Land use	Dates present	Group ID
Z	291m S	Unspecified Works	1921 - 1938	1834755
H	292m E	Unspecified Works	1888	1784005
H	292m E	Metal Works	1903	1779934
C	292m E	Unspecified Pit	1888 - 1889	1839485
V	293m W	Railway Sidings	1888	1800056
V	293m W	Railway Sidings	1921 - 1938	1848014
V	293m W	Railway Sidings	1903	1849226
Y	296m SE	Cuttings	1978	1812402
Y	296m SE	Cuttings	1988	1817168
Y	296m SE	Cuttings	1966	1819978
H	297m E	Engineering Works	1921	1783497
H	297m E	Engineering Works	1903	1806265
9	298m NE	Unspecified Works	1888	1771105
M	298m W	Unspecified Tank	1978	1783093
M	298m W	Unspecified Tank	1988	1844039
V	299m W	Railway Sidings	1889	1850921
H	300m E	Engineering Works	1889	1816469
V	305m W	Railway Sidings	1903	1795352
V	305m W	Railway Sidings	1921	1835649
N	306m N	Railway Carriage Wagon Works	1921	1840524
AA	307m S	Unspecified Works	1966	1846029
AB	307m N	Unspecified Works	1988	1818902
AB	307m N	Unspecified Works	1978	1837156
V	308m W	Railway Sidings	1921 - 1966	1808051
H	308m E	Railway Sidings	1921	1814286
V	308m SW	Unspecified Commercial/Industrial	1938	1752842
V	310m SW	Railway Sidings	1938	1844618
H	311m E	Railway Sidings	1938	1780503



ID	Location	Land use	Dates present	Group ID
V	312m SW	Railway Land	1904	1759146
Z	313m SE	Unspecified Works	1966	1828830
H	314m E	Railway Sidings	1903 - 1904	1793387
H	315m E	Railway Sidings	1955	1789641
H	315m E	Railway Sidings	1938	1819815
N	315m N	Unspecified Works	1966	1789979
V	317m SW	Railway Sidings	1904	1806646
H	318m E	Railway Sidings	1921	1847589
Z	320m S	Unspecified Works	1921 - 1938	1793306
V	321m SW	Railway Station	1988	1789402
V	321m SW	Railway Station	1978	1826626
Z	321m S	Unspecified Ground Workings	1904	1803220
Z	323m S	Unspecified Works	1955	1848399
10	323m N	Unspecified Commercial/Industrial	1955	1752864
N	326m N	Carriage and Wagon Works	1938	1772359
X	326m SE	Rivet Works	1889	1806596
Z	327m S	Unspecified Works	1889	1841367
N	333m N	Railway Carriage Wagon Works	1902	1841919
AA	334m SE	Bolts, Nuts etc. Works	1888	1758346
AA	335m S	Unspecified Commercial/Industrial	1921 - 1938	1834157
J	337m E	Basin	1889	1773940
Z	340m S	Bolts and Nuts Works	1889	1759799
N	340m NE	Railway Sidings	1902 - 1938	1809396
N	340m N	Railway Carriage and Wagon Works	1889	1834812
H	341m E	Unspecified Works	1978	1803838
H	341m E	Unspecified Works	1988	1815007
N	341m N	Railway Sidings	1902	1846105
V	343m W	Railway Sidings	1921 - 1938	1806669



ID	Location	Land use	Dates present	Group ID
V	343m W	Railway Sidings	1903 - 1904	1807862
J	344m E	Unspecified Industrial/Commercial	1889	1774184
N	344m N	Railway Carriage Wagon Works	1921	1805373
Z	346m S	Unspecified Ground Workings	1938	1804474
V	346m W	Railway Building	1938 - 1955	1833063
N	346m N	Railway Sidings	1888	1820944
V	348m SW	Railway Building	1921	1764663
N	351m N	Railway Carriage Wagon Works	1938	1834404
Y	351m SE	Railway Sidings	1966	1818020
AF	351m NE	Railway Sidings	1966	1828411
J	351m E	Unspecified Industrial/Commercial	1921	1774186
Y	351m SE	Railway Station	1889	1836348
J	352m E	Unspecified Commercial/Industrial	1913 - 1921	1825498
J	353m E	Basin	1889	1773938
J	355m E	Engineering Works	1888 - 1889	1787943
Y	356m SE	Railway Station	1903	1803145
Y	356m SE	Railway Station	1921	1846025
J	357m E	Unspecified Commercial/Industrial	1938	1789426
C	358m E	Railway Sidings	1938	1818436
J	358m E	Unspecified Commercial/Industrial	1902	1827794
AH	359m NE	Railway Sidings	1938	1845240
AH	361m N	Railway Sidings	1921	1830313
Y	361m SE	Railway Station	1904	1813200
AF	361m NE	Railway Sidings	1955	1844858
V	362m W	Railway Building	1903	1780909
V	362m W	Railway Building	1921	1851008
Y	363m SE	Railway Station	1938	1847148
C	364m E	Unspecified Heap	1938	1756093



ID	Location	Land use	Dates present	Group ID
V	367m W	Railway Building	1955 - 1966	1818432
AA	367m S	Railway Sidings	1921 - 1938	1795322
V	368m W	Railway Building	1921 - 1938	1780956
V	368m W	Railway Building	1903 - 1904	1838099
V	369m W	Goods Shed	1888 - 1889	1786215
AH	369m NE	Railway Sidings	1938	1804371
C	371m E	Unspecified Ground Workings	1938	1754305
AA	378m S	Railway Sidings	1921 - 1938	1840945
Y	385m SE	Railway Station	1921	1817330
Y	385m SE	Railway Station	1888	1825674
Y	385m SE	Railway Station	1903	1830181
Y	387m SE	Railway Station	1921 - 1938	1801410
AA	388m SE	Bolts and Nuts Works	1889	1759798
Y	389m SE	Goods Station	1955	1765823
Y	390m SE	Railway Sidings	1938	1807643
J	391m NE	Unspecified Works	1902	1839699
J	391m NE	Bolt and Nut Works	1888 - 1889	1818338
12	393m E	Railway Building	1889	1764664
13	394m SE	Unspecified Ground Workings	1904	1754268
J	395m NE	Unspecified Commercial/Industrial	1913 - 1921	1824547
14	396m SW	Unspecified Works	1966	1771091
Y	399m SE	Cuttings	1903	1788066
Y	399m SE	Cuttings	1921 - 1938	1827360
Y	399m SE	Cuttings	1888	1829431
Y	399m SE	Cuttings	1889	1846940
AM	419m SW	Unspecified Works	1966	1771090
AM	422m SW	Unspecified Commercial/Industrial	1938	1791488
AM	422m SW	Unspecified Commercial/Industrial	1903	1828362



ID	Location	Land use	Dates present	Group ID
AM	422m SW	Unspecified Foundry	1888 - 1889	1835368
AN	428m W	Railway Building	1966	1791609
Y	428m SE	Goods Station	1955	1765822
H	429m E	Railway Sidings	1938	1845398
Y	430m SE	Railway Building	1888	1784976
Y	430m SE	Railway Building	1903	1789639
Y	432m SE	Railway Building	1921	1828643
C	434m SE	Railway Sidings	1903	1798780
C	434m SE	Railway Sidings	1921 - 1938	1834254
C	434m SE	Railway Sidings	1888	1849431
C	434m E	Railway Land	1921	1759145
AO	436m S	Police Station	1988	1810399
AO	436m S	Police Station	1966 - 1978	1851033
AN	437m W	Railway Building	1888	1764665
J	438m E	Unspecified Commercial/Industrial	1902	1823021
H	439m E	Unspecified Commercial/Industrial	1889	1828893
AN	439m W	Railway Building	1938	1788697
C	440m SE	Unspecified Commercial/Industrial	1903	1806123
AN	444m W	Railway Building	1938	1826552
AN	444m W	Railway Building	1888	1800736
AN	444m W	Railway Building	1903	1806396
17	447m W	Railway Sidings	1888 - 1889	1799715
AQ	449m NW	Unspecified Works	1966 - 1978	1785194
AQ	449m NW	Unspecified Works	1988	1818294
AR	449m SW	Railway Sidings	1888	1751112
AQ	449m NW	Unspecified Commercial/Industrial	1955	1752865
AS	451m SE	Unspecified Heap	1903	1805143
AS	451m SE	Unspecified Heap	1921 - 1938	1817209



ID	Location	Land use	Dates present	Group ID
C	457m E	Goods Shed	1888	1799112
C	457m E	Goods Shed	1921 - 1938	1808159
C	457m E	Goods Shed	1903 - 1904	1830945
C	457m E	Goods Shed	1889	1797920
AS	457m SE	Unspecified Heap	1921	1845201
C	458m E	Goods Shed	1921	1804659
C	458m E	Goods Station	1966	1765824
C	459m E	Goods Shed	1938	1801636
C	461m E	Goods Shed	1955	1842246
C	461m E	Goods Shed	1903	1824998
C	466m E	Goods Shed	1938	1783180
AR	469m SW	Police Station	1888 - 1889	1785149
H	470m E	Railway Sidings	1903 - 1904	1783154
J	473m E	Railway Sidings	1889	1846980
C	474m SE	Railway Sidings	1921	1793084
C	474m SE	Railway Sidings	1903	1833541
AS	475m SE	Unspecified Ground Workings	1904	1754269
C	479m SE	Railway Sidings	1938	1824026
AU	479m SE	Unspecified Wharf	1889 - 1904	1812410
19	479m S	Unspecified Ground Workings	1904	1754265
AU	480m SE	Unspecified Wharf	1888	1833755
AR	480m SW	Unspecified Commercial/Industrial	1938	1789686
AR	480m SW	Axle Works	1888 - 1889	1790985
AR	480m SW	Unspecified Commercial/Industrial	1903	1846883
AU	482m SE	Unspecified Wharf	1903	1825867
AU	482m SE	Unspecified Commercial/Industrial	1921	1834359
AU	484m SE	Unspecified Depot	1978	1807961
AU	484m SE	Unspecified Depot	1988	1814671



ID	Location	Land use	Dates present	Group ID
J	484m NE	Basin	1921	1773939
AU	485m SE	Unspecified Wharf	1903	1838716
20	488m W	Cuttings	1888	1751842

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

150

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
B	On site	Unspecified Tank	1890	288349
B	On site	Unspecified Tank	1890	288548
B	On site	Unspecified Tank	1918	295982
B	On site	Unspecified Tank	1887	298449
B	On site	Unspecified Tank	1890	300374
B	0m SE	Unspecified Tank	1887	294701
B	1m SE	Unspecified Tank	1918	295704
B	1m S	Unspecified Tank	1887	291174
B	2m S	Unspecified Tank	1918	293476
C	17m E	Tanks	1956 - 1979	297029
B	21m SE	Unspecified Tank	1904	281678
D	37m S	Unspecified Tank	1887 - 1890	298399
D	38m SW	Unspecified Tank	1887 - 1890	296059
D	46m SW	Unspecified Tank	1956	291489
D	50m SW	Unspecified Tank	1956	300453



ID	Location	Land use	Dates present	Group ID
D	58m SW	Unspecified Tank	1887 - 1890	291014
B	60m SE	Unspecified Tank	1890 - 1904	292093
G	80m NW	Unspecified Tank	1904	281704
G	80m NW	Unspecified Tank	1887	289149
G	80m NW	Tanks	1918	286651
G	81m NW	Unspecified Tank	1918	298144
G	83m NW	Unspecified Tank	1890	294578
G	90m NW	Unspecified Tank	1887 - 1890	291010
G	95m NW	Unspecified Tank	1887 - 1890	300325
L	96m N	Unspecified Tank	1993	298031
L	97m N	Unspecified Tank	1985	291172
G	98m NW	Tanks	1918	286652
G	98m W	Unspecified Tank	1887	292865
L	99m N	Unspecified Tank	1978	294582
G	99m W	Unspecified Tank	1890	300612
G	106m NW	Tanks	1904 - 1918	289759
G	108m NW	Unspecified Tank	1887	290141
G	111m NW	Unspecified Tank	1890	298275
G	112m NW	Unspecified Tank	1887 - 1890	295119
G	118m NW	Unspecified Tank	1976 - 1983	295728
G	118m NW	Tanks	1887	296357
G	119m NW	Unspecified Tank	1887	299775
G	119m NW	Tanks	1890 - 1918	294723
G	120m NW	Unspecified Tank	1918	281708
G	120m NW	Unspecified Tank	1918	301516
G	122m NW	Unspecified Tank	1890	295054
G	124m NW	Unspecified Tank	1887 - 1918	296151
C	130m E	Unspecified Tank	1890	281679



ID	Location	Land use	Dates present	Group ID
G	131m NW	Unspecified Tank	1890	281705
C	132m E	Unspecified Tank	1890	281680
C	132m E	Unspecified Tank	1887	281681
G	135m NW	Unspecified Tank	1890	281703
G	135m W	Tanks	1956 - 1994	291796
I	139m E	Tanks	1938	286732
I	141m NE	Unspecified Tank	1887	282011
I	144m NE	Unspecified Tank	1890	282012
G	145m NW	Tanks	1938	286733
G	151m NW	Unspecified Tank	1976 - 1994	301064
G	153m NW	Unspecified Tank	1978 - 1984	290332
P	153m S	Unspecified Tank	1974 - 1984	298498
G	155m NW	Unspecified Tank	1978	282007
P	156m S	Unspecified Tank	1993	294652
C	157m E	Unspecified Tank	1904	281682
I	157m NE	Tanks	1978 - 1993	298616
I	158m NE	Unspecified Tank	1956	291750
5	159m SE	Unspecified Tank	1956	300674
I	159m NE	Tanks	1985	293802
I	167m NE	Unspecified Tank	1956	289584
G	171m NW	Tanks	1978 - 1994	299367
G	172m NW	Unspecified Tank	1978	282009
C	175m E	Unspecified Tank	1887 - 1890	301974
I	185m NE	Unspecified Tank	1956 - 1993	293557
C	190m E	Unspecified Tank	1956	300549
C	190m E	Unspecified Tank	1984	301263
C	191m E	Unspecified Tank	1993	290562
C	191m E	Unspecified Tank	1956 - 1979	296745



ID	Location	Land use	Dates present	Group ID
G	193m NW	Unspecified Tank	1937	282008
G	200m NW	Tanks	1937 - 1978	298479
M	211m W	Unspecified Tank	1887 - 1904	295209
G	211m NW	Unspecified Tank	1918	281710
C	212m E	Unspecified Tank	1956 - 1984	301207
C	212m E	Unspecified Tank	1993	297594
C	216m E	Unspecified Tank	1956 - 1993	291654
I	220m E	Unspecified Tank	1887 - 1890	300728
G	221m NW	Unspecified Tank	1956 - 1978	300554
G	222m NW	Unspecified Tank	1956 - 1978	293880
I	225m E	Unspecified Tank	1887 - 1890	295723
M	225m W	Unspecified Tank	1887 - 1890	298488
G	228m NW	Unspecified Tank	1887	282010
I	235m E	Unspecified Tank	1887 - 1890	299572
G	236m NW	Tanks	1937	286654
M	236m W	Unspecified Tank	1887	300493
M	237m W	Unspecified Tank	1890	300047
C	240m E	Unspecified Tank	1904	281683
I	241m E	Unspecified Tank	1890	282013
I	245m E	Unspecified Tank	1887 - 1890	295264
C	249m E	Tanks	1956	293725
G	250m NW	Unspecified Tank	1937	282006
C	251m E	Unspecified Tank	1956	281684
C	251m E	Tanks	1956	286646
I	261m E	Unspecified Tank	1887 - 1890	296765
M	262m W	Unspecified Tank	1890	281702
M	265m W	Unspecified Tank	1887 - 1890	289608
I	269m NE	Unspecified Tank	1978 - 1985	293244



ID	Location	Land use	Dates present	Group ID
W	271m NE	Unspecified Tank	1889	282002
I	276m NE	Tanks	1978 - 1985	293497
M	284m W	Tanks	1887	286648
M	285m W	Unspecified Tank	1887	292230
M	285m W	Unspecified Tank	1890	297602
M	286m W	Unspecified Tank	1890	299910
8	288m S	Unspecified Tank	1890	281692
M	288m W	Tanks	1887	286649
M	289m W	Unspecified Tank	1890 - 1918	296797
M	289m W	Unspecified Tank	1890	281701
M	297m W	Unspecified Tank	1976 - 1994	290545
M	307m W	Unspecified Tank	1887	292287
M	308m W	Unspecified Tank	1890	299131
C	315m E	Tanks	1956	296519
C	324m E	Tanks	1956	299384
C	325m E	Tanks	1955 - 1956	291336
M	326m W	Tanks	1918	286647
AE	349m NW	Unspecified Tank	1993 - 1994	289944
AE	350m NW	Unspecified Tank	1993	294626
AE	350m NW	Unspecified Tank	1992	298131
AE	351m NW	Unspecified Tank	1984	291312
AG	358m NE	Unspecified Tank	1937	282005
AG	361m NE	Unspecified Tank	1956	301785
C	379m E	Unspecified Tank	1972 - 1979	295569
AK	380m E	Unspecified Tank	1955	291819
AK	380m E	Unspecified Tank	1955	288837
AK	380m E	Unspecified Tank	1972	291710
AK	380m E	Unspecified Tank	1979	294682



ID	Location	Land use	Dates present	Group ID
AK	380m E	Unspecified Tank	1992	293038
J	384m E	Unspecified Tank	1955	289877
J	384m E	Unspecified Tank	1955	300897
AG	393m NE	Tanks	1937	286731
AG	394m NE	Unspecified Tank	1956	293514
AG	398m NE	Unspecified Tank	1917	301494
AG	399m NE	Unspecified Tank	1956	298303
AG	402m NE	Tanks	1917	294617
AG	403m NE	Tanks	1956	296673
N	414m N	Unspecified Tank	1978	282003
N	426m N	Tanks	1978	286729
C	427m E	Unspecified Tank	1972 - 1992	292400
C	427m E	Tanks	1955	298234
N	431m N	Unspecified Tank	1978	282004
AL	435m NE	Tanks	1955	297566
AN	444m W	Oil Tanks	1918	285770
Y	450m SE	Unspecified Tank	1888	281691
H	492m E	Unspecified Tank	1979	289080
H	492m E	Unspecified Tank	1972	289895
H	493m E	Unspecified Tank	1992	289495
H	497m E	Unspecified Tank	1890	295825
H	497m E	Unspecified Tank	1887	300586
H	498m E	Unspecified Tank	1887	281707

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

58

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
C	28m E	Electricity Substation	1984	172997
C	39m E	Electricity Substation	1956 - 1979	182547
C	49m E	Electricity Substation	1993	172005
C	49m E	Electricity Substation	1993	172327
I	79m N	Electricity Substation	1978 - 1993	177882
I	81m N	Electricity Substation	1956	184816
C	99m E	Electricity Substation	1956	171870
C	99m E	Electricity Substation	1974	172383
C	99m E	Electricity Substation	1979	173209
C	99m E	Electricity Substation	1956	172307
C	99m E	Electricity Substation	1993	172047
C	99m E	Electricity Substation	1993	172623
C	99m E	Electricity Substation	1984	172203
C	119m E	Electricity Substation	1993	173162
C	119m E	Electricity Substation	1993	173423
C	119m E	Electricity Substation	1956	173152
C	119m E	Electricity Substation	1984	172574
C	120m E	Electricity Substation	1979	172382
C	120m E	Electricity Substation	1956	172398
C	120m E	Electricity Substation	1974	173211
C	172m E	Electricity Substation	1984	168976



ID	Location	Land use	Dates present	Group ID
C	188m E	Electricity Substation	1956 - 1993	179152
G	189m NW	Electricity Substation	1992 - 1994	180110
G	193m NW	Electricity Substation	1994	168977
O	196m SE	Electricity Substation	1984	174453
O	213m SE	Electricity Substation	1956 - 1993	183392
O	214m SE	Electricity Substation	1956 - 1993	185541
C	216m E	Electricity Substation	1956 - 1993	179457
G	269m NW	Electricity Substation	1984 - 1994	184777
C	278m E	Electricity Substation	1984	186934
C	279m E	Electricity Substation	1956	172736
C	279m E	Electricity Substation	1956 - 1979	177757
C	290m E	Electricity Substation	1993	173061
C	290m E	Electricity Substation	1993	173163
AD	344m NW	Electricity Substation	1978 - 1993	176580
AD	344m NW	Electricity Substation	1985	176384
11	351m N	Electricity Substation	1978 - 1993	180234
J	361m E	Power House	1937	171539
Z	366m S	Electricity Substation	1979 - 1993	176414
AI	378m NW	Electricity Substation	1956 - 1984	174955
AJ	379m S	Electricity Substation	1983 - 1991	174801
J	380m E	Electricity Substation	1993	187120
J	380m E	Electricity Substation	1973	187252
AI	382m NW	Electricity Substation	1992 - 1994	184756
AJ	384m S	Electricity Substation	1972	176091
15	397m SW	Electricity Substation	1976 - 1994	183361
AC	397m S	Gas Maintenance Department	1956	177350
AL	412m NE	Electricity Substation	1973	168979
AL	423m NE	Electricity Substation	1993	173841



ID	Location	Land use	Dates present	Group ID
16	423m N	Electricity Substation	1978 - 1993	175510
AP	437m W	Electricity Substation	1971 - 1995	177553
AP	438m W	Electricity Substation	1983 - 1990	186309
18	468m SE	Electricity Substation	1967 - 1994	181897
AT	470m NW	Electricity Substation	1978 - 1993	181958
AT	471m NW	Electricity Substation	1993	180524
AT	473m NW	Electricity Substation	1994	184574
AV	481m S	Electricity Substation	1983 - 1990	186775
AV	482m S	Electricity Substation	1967 - 1994	177213

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

1

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
Q	229m S	Service Garage	1956	3037

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

17

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14**



ID	Location	Land use	Dates present	Group ID
K	89m S	Garage	1992	56992
K	89m S	Garage	1976 - 1980	58581
K	89m S	Garage	1983	55906
K	120m S	Vehicle Body Repair Works	1976	54977
R	189m SW	Garage	1994	57099
R	189m SW	Garage	1992 - 1994	59247
R	191m SW	Garage	1983	55566
R	208m SW	Garage	1976 - 1980	57786
Q	228m S	Garage	1956	54572
Q	229m S	Service Garage	1956	54970
G	248m NW	Garage	1992 - 1994	60432
G	248m NW	Garage	1978	57339
G	248m NW	Garage	1984	57005
AC	344m S	Garage	1956	56349
AC	368m S	Garage	1956 - 1972	59647
AC	369m S	Garage	1983	58158
AL	412m NE	Vehicle Maintenance Depot	1973	54933

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

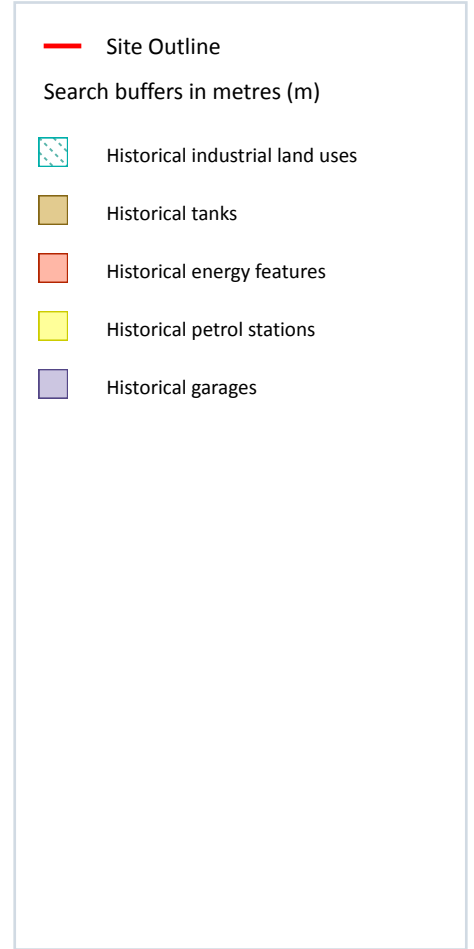
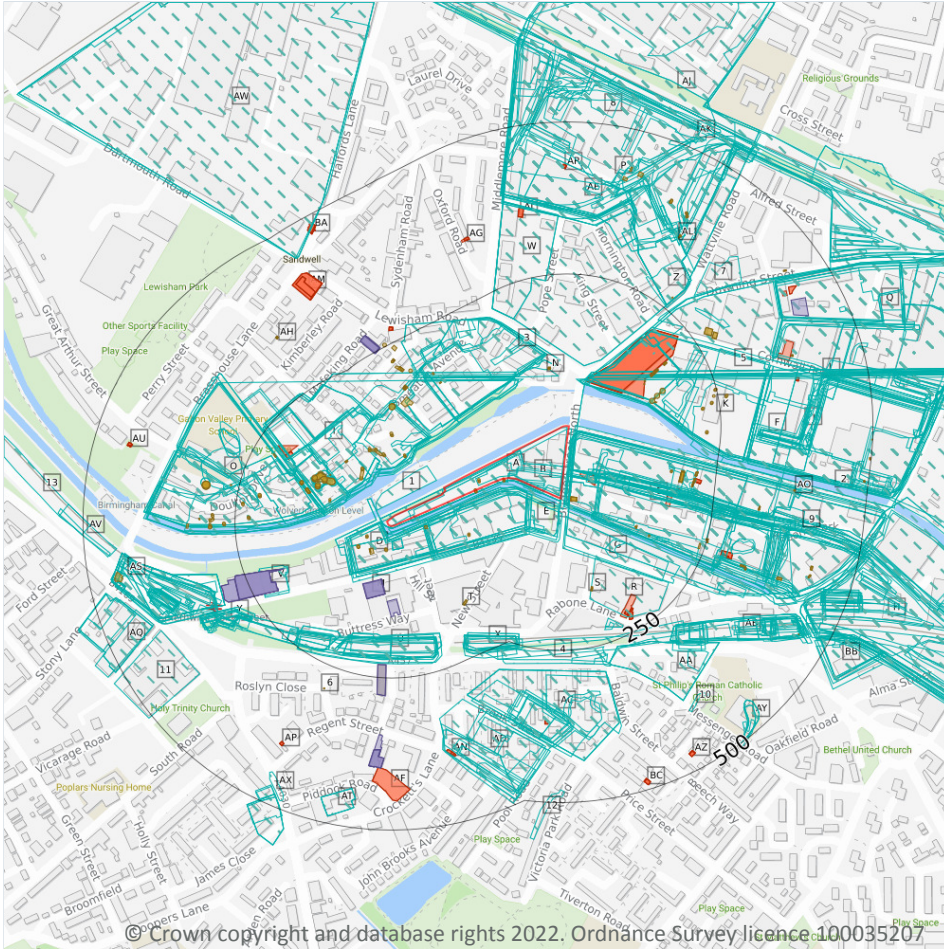
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



2.1 Historical industrial land uses

Records within 500m

490

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 38**

ID	Location	Land Use	Date	Group ID
A	On site	Iron Works	1888	1802674
A	On site	Unspecified Commercial/Industrial	1903	1823045
A	On site	Unspecified Commercial/Industrial	1938	1839209

ID	Location	Land Use	Date	Group ID
A	On site	Iron Works	1889	1802674
A	On site	Unspecified Commercial/Industrial	1904	1823045
A	On site	Unspecified Commercial/Industrial	1938	1839209
B	On site	Unspecified Wharf	1888	1787173
B	On site	Unspecified Wharf	1889	1787173
B	On site	Unspecified Works	1966	1771107
A	3m SE	Corporation Depot	1938	1809863
A	3m SE	Unspecified Commercial/Industrial	1888	1809523
C	6m E	Plate Glass Works	1889	1809772
C	7m E	Metal Works	1921	1848780
C	7m E	Unspecified Works	1921	1797763
C	7m E	Plate Glass Works	1888	1809772
C	8m E	Metal Works	1938	1848780
C	8m E	Unspecified Works	1938	1800426
C	8m E	Metal Works	1921	1820644
C	8m E	Metal Works	1921	1808786
C	8m E	Unspecified Works	1921	1845797
C	8m E	Metal Works	1904	1790711
D	9m SW	Corporation Yard	1921	1781110
D	9m SW	Corporation Yard	1903	1842646
C	9m E	Unspecified Works	1904	1810753
C	9m E	Metal Works	1955	1848780
C	9m E	Unspecified Works	1955	1797763
A	10m S	Corporation Depot	1955	1841596
C	11m E	Unspecified Works	1903	1811467
A	11m SE	Unspecified Works	1966	1834859
A	11m SE	Unspecified Works	1978	1834859
A	11m SE	Unspecified Works	1988	1827162



ID	Location	Land Use	Date	Group ID
D	11m SW	Corporation Yard	1903	1842646
D	11m SW	Corporation Yard	1938	1781110
E	12m S	Unspecified Wharf	1888	1825365
C	12m E	Metal Works	1938	1820644
C	12m E	Unspecified Works	1938	1800426
C	13m E	Metal Works	1938	1802075
C	13m E	Metal Works	1903	1790711
C	13m E	Unspecified Works	1938	1797763
C	14m E	Unspecified Works	1903	1816013
F	14m E	Industrial Estate	1978	1817122
F	14m E	Industrial Estate	1988	1823798
A	14m W	Corporation Depot	1938	1841596
A	14m SE	Unspecified Commercial/Industrial	1921	1802387
A	14m SE	Unspecified Commercial/Industrial	1903	1793260
D	15m SW	Iron Works	1889	1767086
A	15m SE	Unspecified Commercial/Industrial	1889	1793260
A	17m SE	Corporation Depot	1921	1818806
E	17m S	Unspecified Wharf	1889	1825365
1	17m NW	Iron Works	1888	1767085
A	20m SE	Corporation Yard	1904	1802486
A	20m SE	Corporation Depot	1921	1818806
A	24m SE	Railway Sidings	1889	1751116
D	24m S	Fire Station	1966	1808139
D	24m S	Fire Station	1978	1808139
D	24m S	Fire Station	1988	1819091
G	31m S	Unspecified Commercial/Industrial	1904	1844295
G	31m S	Unspecified Commercial/Industrial	1921	1786745
C	39m E	Railway Sidings	1888	1804704



ID	Location	Land Use	Date	Group ID
H	47m E	Railway Sidings	1966	1850304
H	52m E	Railway Sidings	1889	1842161
C	54m E	Railway Sidings	1903	1784444
C	54m E	Railway Sidings	1938	1784444
H	54m E	Railway Sidings	1955	1823092
C	58m SE	Unspecified Works	1921	1785811
H	59m E	Railway Sidings	1904	1784231
H	60m E	Railway Sidings	1903	1829839
I	63m NW	Unspecified Commercial/Industrial	1938	1816072
I	63m NW	Iron and Axle Works	1921	1811733
I	64m NW	Iron and Axle Works	1904	1792224
I	68m NW	Sandwell Iron And Axle Works	1889	1775096
H	68m E	Railway Sidings	1938	1815582
I	69m NW	Iron and Axle Works	1921	1830007
I	69m NW	Iron and Axle Works	1903	1809007
I	72m NW	Iron and Axle Works	1888	1824272
I	72m NW	Iron and Axle Works	1903	1809007
I	72m NW	Unspecified Commercial/Industrial	1938	1816072
J	73m N	Engineering Works	1921	1810123
I	73m NW	Iron and Axle Works	1921	1804644
K	73m N	Iron Works	1888	1824802
K	73m N	Engineering Works	1903	1797338
K	73m N	Unspecified Commercial/Industrial	1938	1794993
J	74m NE	Unspecified Commercial/Industrial	1938	1824440
I	75m NW	Unspecified Works	1978	1824045
I	75m NW	Unspecified Works	1988	1818437
K	75m NE	Unspecified Commercial/Industrial	1904	1792067
K	76m NE	Iron Works	1889	1824802



ID	Location	Land Use	Date	Group ID
I	76m NW	Pipe Works	1889	1758349
I	77m NW	Stoneware Pipe Works	1888	1751361
I	79m NW	Unspecified Works	1966	1771106
L	81m N	Unspecified Commercial/Industrial	1955	1828772
L	81m N	Unspecified Works	1966	1828672
I	82m NW	Railway Sidings	1888	1848520
I	82m NW	Unspecified Commercial/Industrial	1904	1826810
I	83m N	Unspecified Works	1888	1790328
I	83m NW	Railway Sidings	1889	1848520
2	84m E	Railway Sidings	1921	1812867
K	87m NE	Unspecified Commercial/Industrial	1921	1830579
K	87m NE	Unspecified Commercial/Industrial	1903	1790345
I	88m NW	Gas Fittings Works	1889	1760407
I	89m NW	Unspecified Works	1966	1819753
I	90m NW	Unspecified Works	1978	1795106
I	90m NW	Unspecified Works	1988	1846343
I	91m NW	Unspecified Commercial/Industrial	1921	1841192
I	92m NW	Unspecified Commercial/Industrial	1921	1800805
I	92m NW	Unspecified Commercial/Industrial	1903	1826810
K	92m NE	Iron Works	1889	1824802
I	93m NW	Unspecified Works	1888	1790328
I	93m NW	Unspecified Commercial/Industrial	1903	1799996
I	93m NW	Unspecified Commercial/Industrial	1938	1824009
K	94m NE	Iron Works	1888	1824802
K	98m NE	Unspecified Commercial/Industrial	1913	1830579
C	98m E	Railway Sidings	1921	1784444
O	101m W	Unspecified Works	1921	1791093
O	101m W	Unspecified Works	1903	1805571



ID	Location	Land Use	Date	Group ID
I	102m NW	Unspecified Tanks	1921	1796541
O	102m W	Unspecified Works	1921	1786540
O	102m W	Unspecified Works	1921	1824797
O	102m W	Unspecified Works	1938	1824216
P	102m N	Industrial Estate	1978	1817001
P	102m N	Industrial Estate	1988	1787102
Q	104m NE	Unspecified Commercial/Industrial	1938	1828772
I	104m NW	Unspecified Tank	1904	1768124
O	105m W	Unspecified Works	1904	1805571
I	106m NW	Unspecified Tanks	1903	1797784
I	106m NW	Unspecified Tanks	1921	1838766
I	107m N	Unspecified Commercial/Industrial	1913	1846708
I	107m NW	Unspecified Commercial/Industrial	1938	1806278
I	107m NW	Unspecified Commercial/Industrial	1921	1846708
H	108m E	Railway Sidings	1938	1804517
H	108m E	Railway Sidings	1921	1804517
O	109m W	Iron and Steel Works	1888	1845257
O	109m W	Unspecified Works	1903	1815304
O	109m W	Unspecified Works	1938	1798928
O	109m W	Unspecified Works	1938	1805055
G	109m SE	Railway Sidings	1921	1751115
I	110m NW	Unspecified Works	1902	1814825
I	110m NW	Unspecified Works	1902	1836496
R	113m SE	Unspecified Works	1966	1771101
I	116m NW	Unspecified Tanks	1921	1838766
I	116m NW	Unspecified Tanks	1903	1798779
I	116m NW	Unspecified Tank	1904	1768125
I	118m NW	Unspecified Tanks	1889	1798779



ID	Location	Land Use	Date	Group ID
I	119m NW	Unspecified Tanks	1888	1798779
I	120m NW	Unspecified Works	1966	1788100
I	121m NW	Unspecified Tank	1904	1768122
I	126m NW	Unspecified Tank	1904	1768128
I	128m NW	Gas Fittings Works	1889	1760406
O	129m W	Unspecified Works	1978	1793025
O	129m W	Unspecified Works	1988	1822323
I	131m NW	Unspecified Tank	1904	1768126
J	133m E	Engineering Works	1904	1819178
J	134m E	Engineering Works	1921	1811257
3	148m NW	Unspecified Ground Workings	1889	1754306
I	155m NW	Unspecified Tank	1978	1768130
J	159m E	Railway Sidings	1888	1827558
K	160m E	Unspecified Tank	1955	1768132
K	160m E	Railway Sidings	1889	1813809
I	165m NW	Glue Manufactory	1889	1845107
O	167m W	Iron and Steel Works	1889	1845257
C	170m E	Unspecified Pit	1888	1776348
U	179m S	Cuttings	1921	1813229
U	179m S	Cuttings	1903	1781482
V	179m SW	Unspecified Foundry	1888	1828533
V	181m SW	Unspecified Foundry	1889	1828533
U	181m S	Cuttings	1966	1830778
U	182m S	Cuttings	1888	1807221
I	182m NW	Glue Manufactory	1888	1845107
U	184m S	Cuttings	1938	1785214
U	184m S	Cuttings	1955	1836308
U	184m S	Cuttings	1978	1796631



ID	Location	Land Use	Date	Group ID
U	184m S	Cuttings	1988	1796631
K	185m E	Iron Works	1889	1824802
U	186m S	Cuttings	1921	1813229
U	186m S	Cuttings	1938	1813229
U	186m S	Cuttings	1903	1781482
U	188m S	Cuttings	1889	1781482
U	189m S	Cuttings	1921	1838798
U	191m S	Cuttings	1938	1805942
K	191m NE	Iron Works	1889	1824802
K	194m NE	Iron Works	1888	1824802
K	194m NE	Unspecified Works	1902	1850204
U	194m SW	Cuttings	1921	1837631
U	194m SW	Cuttings	1903	1801433
U	194m S	Cuttings	1904	1822898
W	195m NW	Unspecified Works	1978	1823331
W	195m NW	Unspecified Works	1988	1797624
U	203m SW	Cuttings	1938	1819875
U	203m SW	Cuttings	1888	1809908
O	206m W	Railway Sidings	1921	1805745
K	207m NE	Railway Sidings	1888	1827558
U	207m SW	Cuttings	1921	1819875
U	207m SW	Cuttings	1938	1819875
U	207m SW	Cuttings	1903	1834613
K	208m NE	Railway Sidings	1889	1796000
X	210m SE	Cuttings	1921	1843316
X	210m SE	Cuttings	1903	1795646
X	211m SE	Cuttings	1921	1833344
X	211m SE	Cuttings	1938	1833344



ID	Location	Land Use	Date	Group ID
X	211m SE	Cuttings	1888	1835413
X	211m SE	Cuttings	1903	1815385
R	212m S	Smithy	1888	1802311
X	213m SE	Cuttings	1938	1812851
O	213m W	Railway Sidings	1921	1805745
X	215m SE	Cuttings	1955	1833344
O	216m W	Railway Sidings	1921	1805699
X	218m SE	Cuttings	1889	1820204
R	219m S	Smithy	1889	1802311
X	221m SE	Cuttings	1921	1794342
X	223m SE	Cuttings	1904	1815385
Y	225m SW	Railway Station	1921	1799389
Y	225m SW	Railway Station	1903	1817647
R	231m S	Railway Sidings	1955	1798735
Y	232m SW	Railway Station	1938	1801054
R	238m S	Railway Sidings	1966	1798735
C	239m SE	Malthouse	1888	1785689
4	243m SE	Coal Depot	1966	1750940
O	246m W	Unspecified Heap	1889	1833231
Y	246m SW	Railway Station	1904	1817647
O	248m W	Unspecified Works	1966	1836727
5	253m E	Unspecified Works	1902	1831094
Z	253m NE	Chandelier and Gas Fittings Works	1889	1774174
P	256m NE	Railway Carriage and Wagon Works	1888	1836498
P	256m NE	Railway Carriage and Wagon Works	1938	1819549
P	256m NE	Railway Sidings	1913	1809167
P	256m NE	Railway Carriage and Wagon Works	1913	1842249
P	256m NE	Railway Carriage and Wagon Works	1902	1825879



ID	Location	Land Use	Date	Group ID
P	256m NE	Railway Sidings	1902	1815662
AA	261m S	Rivet Works	1888	1829244
AA	261m S	Unspecified Commercial/Industrial	1903	1803897
AA	261m S	Unspecified Commercial/Industrial	1938	1821701
R	263m S	Railway Buildings	1955	1773312
O	266m NW	Unspecified Heap	1921	1824889
R	267m S	Unspecified Ground Workings	1904	1754303
O	268m NW	Unspecified Heap	1921	1811833
O	268m NW	Unspecified Heap	1921	1811833
Y	270m SW	Railway Station	1955	1842546
Y	270m SW	Railway Station	1966	1842546
O	271m NW	Unspecified Heap	1921	1845440
Y	271m SW	Railway Station	1921	1844758
C	271m E	Unspecified Wharf	1888	1805361
Y	271m SW	Railway Station	1903	1840685
Y	271m SW	Railway Station	1921	1842546
Y	271m SW	Railway Station	1938	1842546
Y	273m SW	Railway Station	1938	1845252
C	273m E	Unspecified Wharf	1889	1805361
Y	274m SW	Railway Station	1888	1823679
Y	275m SW	Railway Station	1889	1840685
C	276m SE	Unspecified Wharf	1904	1841610
C	279m SE	Unspecified Wharf	1903	1842515
C	281m E	Unspecified Wharf	1903	1850672
AA	281m SE	Cuttings	1921	1784031
AA	281m SE	Cuttings	1938	1784031
AA	281m SE	Cuttings	1888	1793615
AA	281m SE	Cuttings	1903	1791257



ID	Location	Land Use	Date	Group ID
AB	281m SE	Cuttings	1921	1824984
AB	281m SE	Cuttings	1903	1800418
K	283m NE	Gravel Pit	1913	1757807
AC	283m S	Unspecified Works	1938	1797048
AC	283m S	Bolt and Nut Works	1888	1757466
AC	283m S	Unspecified Commercial/Industrial	1903	1752843
AA	285m SE	Cuttings	1955	1784031
AA	285m SE	Cuttings	1889	1788864
AA	288m SE	Cuttings	1921	1784031
C	289m E	Cuttings	1889	1790770
AA	290m SE	Cuttings	1904	1791257
J	291m E	Unspecified Commercial/Industrial	1938	1794993
AC	291m S	Unspecified Works	1938	1834755
C	291m E	Cuttings	1888	1790770
J	292m E	Unspecified Works	1888	1784005
J	292m E	Metal Works	1903	1779934
J	292m E	Unspecified Commercial/Industrial	1938	1794993
C	292m E	Unspecified Pit	1889	1839485
C	292m E	Unspecified Pit	1888	1839485
AA	293m SE	Cuttings	1938	1784031
Y	293m W	Railway Sidings	1888	1800056
Y	293m W	Railway Sidings	1903	1849226
Y	293m W	Railway Sidings	1921	1848014
Y	293m W	Railway Sidings	1938	1848014
C	296m SE	Malthouse	1889	1785689
AB	296m SE	Cuttings	1966	1819978
AB	296m SE	Cuttings	1978	1812402
AB	296m SE	Cuttings	1988	1817168



ID	Location	Land Use	Date	Group ID
J	297m E	Engineering Works	1921	1783497
J	297m E	Engineering Works	1903	1806265
7	298m NE	Unspecified Works	1888	1771105
O	298m W	Unspecified Tank	1978	1783093
O	298m W	Unspecified Tank	1988	1844039
Y	299m W	Railway Sidings	1889	1850921
J	300m E	Engineering Works	1889	1816469
Y	305m W	Railway Sidings	1921	1835649
Y	305m W	Railway Sidings	1903	1795352
P	306m N	Railway Carriage Wagon Works	1921	1840524
P	306m N	Railway Sidings	1921	1809167
AD	307m S	Unspecified Works	1966	1846029
AE	307m N	Unspecified Works	1978	1837156
AE	307m N	Unspecified Works	1988	1818902
Y	308m W	Railway Sidings	1955	1808051
Y	308m W	Railway Sidings	1966	1808051
J	308m E	Railway Sidings	1921	1814286
Y	308m SW	Unspecified Commercial/Industrial	1938	1752842
J	309m E	Railway Sidings	1889	1827558
Y	310m SW	Railway Sidings	1938	1844618
Y	310m SW	Railway Sidings	1921	1808051
Y	311m W	Railway Sidings	1938	1808051
J	311m E	Railway Sidings	1938	1780503
Y	312m SW	Railway Land	1904	1759146
AC	313m SE	Unspecified Works	1966	1828830
J	313m E	Railway Sidings	1903	1827558
J	314m E	Railway Sidings	1904	1793387
J	315m E	Railway Sidings	1955	1789641



ID	Location	Land Use	Date	Group ID
J	315m E	Railway Sidings	1938	1819815
P	315m N	Unspecified Works	1966	1789979
J	316m E	Railway Sidings	1938	1819815
Y	317m SW	Railway Sidings	1904	1806646
J	318m E	Railway Sidings	1921	1847589
J	318m E	Railway Sidings	1903	1793387
AC	320m S	Unspecified Works	1921	1793306
Y	321m SW	Railway Station	1978	1826626
Y	321m SW	Railway Station	1988	1789402
AC	321m S	Unspecified Ground Workings	1904	1803220
AC	322m S	Unspecified Works	1938	1793306
AC	323m S	Unspecified Works	1955	1848399
8	323m N	Unspecified Commercial/Industrial	1955	1752864
P	326m N	Carriage and Wagon Works	1938	1772359
AA	326m SE	Rivet Works	1889	1806596
AC	327m S	Unspecified Works	1889	1841367
AC	330m S	Unspecified Works	1921	1793306
P	333m N	Railway Carriage Wagon Works	1902	1841919
AD	333m S	Unspecified Works	1921	1834755
AD	334m SE	Bolts, Nuts etc. Works	1888	1758346
AD	335m S	Unspecified Commercial/Industrial	1921	1834157
L	337m E	Basin	1889	1773940
AC	340m S	Bolts and Nuts Works	1889	1759799
P	340m NE	Railway Sidings	1938	1809396
P	340m N	Railway Carriage and Wagon Works	1889	1834812
J	341m E	Unspecified Works	1978	1803838
J	341m E	Unspecified Works	1988	1815007
P	341m N	Railway Sidings	1902	1846105



ID	Location	Land Use	Date	Group ID
Y	343m W	Railway Sidings	1921	1806669
Y	343m W	Railway Sidings	1903	1807862
L	344m E	Unspecified Industrial/Commercial	1889	1774184
P	344m N	Railway Carriage Wagon Works	1921	1805373
AC	346m S	Unspecified Ground Workings	1938	1804474
AD	346m S	Unspecified Commercial/Industrial	1938	1834157
Y	346m W	Railway Building	1955	1833063
P	346m N	Railway Sidings	1888	1820944
Y	348m SW	Railway Building	1921	1764663
Y	348m W	Railway Building	1938	1833063
Y	349m SW	Railway Sidings	1938	1806669
P	351m N	Railway Carriage Wagon Works	1938	1834404
AB	351m SE	Railway Sidings	1966	1818020
AJ	351m NE	Railway Sidings	1966	1828411
Q	351m E	Unspecified Industrial/Commercial	1921	1774186
AB	351m SE	Railway Station	1889	1836348
Q	352m E	Unspecified Commercial/Industrial	1921	1825498
Y	352m SW	Railway Sidings	1904	1807862
Q	353m E	Basin	1889	1773938
Q	355m E	Engineering Works	1888	1787943
AB	356m SE	Railway Station	1921	1846025
AB	356m SE	Railway Station	1903	1803145
AK	356m N	Railway Sidings	1889	1815662
Q	357m E	Unspecified Commercial/Industrial	1938	1789426
C	358m E	Railway Sidings	1938	1818436
Q	358m E	Unspecified Commercial/Industrial	1902	1827794
AK	359m NE	Railway Sidings	1938	1845240
AK	361m N	Railway Sidings	1921	1830313



ID	Location	Land Use	Date	Group ID
AB	361m SE	Railway Station	1904	1813200
AJ	361m NE	Railway Sidings	1955	1844858
Y	362m W	Railway Building	1921	1851008
Y	362m W	Railway Building	1903	1780909
AB	363m SE	Railway Station	1938	1847148
C	364m E	Unspecified Heap	1938	1756093
Y	367m W	Railway Building	1955	1818432
Y	367m W	Railway Building	1966	1818432
AD	367m S	Railway Sidings	1938	1795322
Y	368m W	Railway Building	1921	1780956
Y	368m W	Railway Building	1903	1838099
Y	368m W	Railway Building	1921	1780956
Y	368m W	Railway Building	1938	1780956
Y	369m W	Railway Building	1938	1780956
Y	369m W	Goods Shed	1888	1786215
Y	369m W	Railway Building	1904	1838099
AK	369m NE	Railway Sidings	1938	1804371
Y	370m W	Goods Shed	1889	1786215
C	371m E	Unspecified Ground Workings	1938	1754305
AD	378m S	Railway Sidings	1921	1840945
AD	380m S	Railway Sidings	1938	1840945
AB	385m SE	Railway Station	1888	1825674
AB	385m SE	Railway Station	1903	1830181
AB	385m SE	Railway Station	1921	1817330
AB	387m SE	Railway Station	1938	1801410
AD	388m SE	Bolts and Nuts Works	1889	1759798
AB	389m SE	Goods Station	1955	1765823
AB	390m SE	Railway Sidings	1938	1807643



ID	Location	Land Use	Date	Group ID
Q	391m NE	Unspecified Works	1902	1839699
Q	391m NE	Bolt and Nut Works	1889	1818338
Q	393m NE	Bolt and Nut Works	1888	1818338
9	393m E	Railway Building	1889	1764664
AB	393m SE	Railway Station	1921	1801410
10	394m SE	Unspecified Ground Workings	1904	1754268
Q	395m NE	Unspecified Commercial/Industrial	1913	1824547
Q	395m NE	Unspecified Works	1902	1839699
11	396m SW	Unspecified Works	1966	1771091
AB	399m SE	Cuttings	1921	1827360
AB	399m SE	Cuttings	1888	1829431
AB	399m SE	Cuttings	1903	1788066
AB	399m SE	Cuttings	1889	1846940
AB	402m SE	Cuttings	1938	1827360
AD	416m S	Railway Sidings	1921	1795322
AQ	419m SW	Unspecified Works	1966	1771090
AQ	422m SW	Unspecified Foundry	1888	1835368
AQ	422m SW	Unspecified Commercial/Industrial	1903	1828362
AQ	422m SW	Unspecified Commercial/Industrial	1938	1791488
AS	428m W	Railway Building	1966	1791609
AB	428m SE	Goods Station	1955	1765822
J	429m E	Railway Sidings	1938	1845398
AB	430m SE	Railway Building	1888	1784976
AB	430m SE	Railway Building	1903	1789639
AB	432m SE	Railway Building	1921	1828643
J	432m E	Railway Sidings	1938	1845398
H	434m SE	Railway Sidings	1888	1849431
H	434m SE	Railway Sidings	1903	1798780



ID	Location	Land Use	Date	Group ID
H	434m SE	Railway Sidings	1921	1834254
H	434m SE	Railway Sidings	1938	1834254
H	434m E	Railway Land	1921	1759145
AT	436m S	Police Station	1966	1851033
AT	436m S	Police Station	1978	1851033
AT	436m S	Police Station	1988	1810399
AS	437m W	Railway Building	1888	1764665
Q	438m E	Unspecified Commercial/Industrial	1913	1825498
Q	438m E	Unspecified Commercial/Industrial	1902	1823021
J	439m E	Unspecified Commercial/Industrial	1889	1828893
AS	439m W	Railway Building	1938	1788697
H	440m SE	Unspecified Commercial/Industrial	1903	1806123
AQ	441m W	Unspecified Foundry	1889	1835368
AS	444m W	Railway Building	1938	1826552
AS	444m W	Railway Building	1888	1800736
AS	444m W	Railway Building	1903	1806396
AV	447m W	Railway Sidings	1888	1799715
AW	449m NW	Unspecified Works	1966	1785194
AW	449m NW	Unspecified Works	1978	1785194
AW	449m NW	Unspecified Works	1988	1818294
AX	449m SW	Railway Sidings	1888	1751112
AW	449m NW	Unspecified Commercial/Industrial	1955	1752865
AY	451m SE	Unspecified Heap	1903	1805143
AY	451m SE	Unspecified Heap	1921	1817209
AY	451m SE	Unspecified Heap	1938	1817209
Q	455m E	Engineering Works	1889	1787943
Q	457m E	Railway Sidings	1888	1827558
H	457m E	Goods Shed	1888	1799112



ID	Location	Land Use	Date	Group ID
H	457m E	Goods Shed	1903	1830945
H	457m E	Goods Shed	1921	1808159
H	457m E	Goods Shed	1938	1808159
H	457m E	Goods Shed	1889	1797920
AY	457m SE	Unspecified Heap	1921	1845201
AY	457m SE	Unspecified Heap	1921	1845201
H	458m E	Goods Shed	1921	1804659
AV	458m W	Railway Sidings	1889	1799715
H	458m E	Goods Station	1966	1765824
H	459m E	Goods Shed	1938	1801636
H	461m E	Goods Shed	1955	1842246
H	461m E	Goods Shed	1903	1824998
H	462m E	Goods Shed	1904	1830945
H	463m E	Goods Shed	1921	1804659
H	466m E	Goods Shed	1938	1783180
AX	469m SW	Police Station	1888	1785149
J	470m E	Railway Sidings	1904	1783154
AX	471m SW	Police Station	1889	1785149
Q	473m E	Railway Sidings	1889	1846980
H	474m SE	Railway Sidings	1921	1793084
H	474m SE	Railway Sidings	1903	1833541
AY	475m SE	Unspecified Ground Workings	1904	1754269
J	477m E	Railway Sidings	1903	1783154
H	479m SE	Railway Sidings	1938	1824026
BB	479m SE	Unspecified Wharf	1889	1812410
12	479m S	Unspecified Ground Workings	1904	1754265
BB	480m SE	Unspecified Wharf	1888	1833755
AX	480m SW	Axle Works	1888	1790985



ID	Location	Land Use	Date	Group ID
AX	480m SW	Unspecified Commercial/Industrial	1903	1846883
AX	480m SW	Unspecified Commercial/Industrial	1938	1789686
BB	482m SE	Unspecified Commercial/Industrial	1921	1834359
BB	482m SE	Unspecified Wharf	1903	1825867
AX	484m SW	Axle Works	1889	1790985
BB	484m SE	Unspecified Depot	1978	1807961
BB	484m SE	Unspecified Depot	1988	1814671
Q	484m NE	Basin	1921	1773939
BB	485m SE	Unspecified Wharf	1903	1838716
BB	485m SE	Unspecified Wharf	1904	1812410
13	488m W	Cuttings	1888	1751842

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

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Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 38**

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Tank	1918	295982
A	On site	Unspecified Tank	1890	288548
A	On site	Unspecified Tank	1890	300374
A	On site	Unspecified Tank	1890	288349
A	On site	Unspecified Tank	1887	298449
A	0m SE	Unspecified Tank	1887	294701
A	1m SE	Unspecified Tank	1918	295704
A	1m S	Unspecified Tank	1887	291174
A	2m S	Unspecified Tank	1918	293476



ID	Location	Land Use	Date	Group ID
C	17m E	Tanks	1956	297029
C	17m E	Tanks	1979	297029
C	17m E	Tanks	1974	297029
C	17m E	Tanks	1956	297029
A	21m SE	Unspecified Tank	1904	281678
D	37m S	Unspecified Tank	1890	298399
D	38m SW	Unspecified Tank	1890	296059
D	38m S	Unspecified Tank	1887	298399
D	39m SW	Unspecified Tank	1887	296059
D	46m SW	Unspecified Tank	1956	291489
D	50m SW	Unspecified Tank	1956	300453
D	58m SW	Unspecified Tank	1890	291014
D	59m SW	Unspecified Tank	1887	291014
A	60m SE	Unspecified Tank	1890	292093
A	62m SE	Unspecified Tank	1904	292093
I	80m NW	Unspecified Tank	1904	281704
I	80m NW	Unspecified Tank	1887	289149
I	80m NW	Tanks	1918	286651
I	81m NW	Unspecified Tank	1918	298144
I	83m NW	Unspecified Tank	1890	294578
I	90m NW	Unspecified Tank	1887	291010
I	92m NW	Unspecified Tank	1890	291010
I	95m NW	Unspecified Tank	1887	300325
N	96m N	Unspecified Tank	1993	298031
N	96m N	Unspecified Tank	1993	298031
I	97m NW	Unspecified Tank	1890	300325
N	97m N	Unspecified Tank	1985	291172
I	98m NW	Tanks	1918	286652



ID	Location	Land Use	Date	Group ID
I	98m W	Unspecified Tank	1887	292865
N	99m N	Unspecified Tank	1978	294582
I	99m W	Unspecified Tank	1890	300612
I	106m NW	Tanks	1904	289759
I	106m NW	Tanks	1918	289759
I	108m NW	Unspecified Tank	1887	290141
I	111m NW	Unspecified Tank	1890	298275
I	112m NW	Unspecified Tank	1887	295119
I	115m NW	Unspecified Tank	1890	295119
I	118m NW	Unspecified Tank	1980	295728
I	118m NW	Unspecified Tank	1976	295728
I	118m NW	Unspecified Tank	1983	295728
I	118m NW	Tanks	1887	296357
I	119m NW	Unspecified Tank	1887	299775
I	119m NW	Tanks	1890	294723
I	120m NW	Unspecified Tank	1918	281708
I	120m NW	Unspecified Tank	1918	301516
I	122m NW	Unspecified Tank	1890	295054
I	124m NW	Unspecified Tank	1904	296151
I	124m NW	Unspecified Tank	1918	296151
I	124m NW	Unspecified Tank	1887	296151
I	125m NW	Unspecified Tank	1890	296151
I	126m NW	Tanks	1904	294723
I	126m NW	Tanks	1918	294723
C	130m E	Unspecified Tank	1890	281679
I	131m NW	Unspecified Tank	1890	281705
C	132m E	Unspecified Tank	1890	281680
C	132m E	Unspecified Tank	1887	281681



ID	Location	Land Use	Date	Group ID
I	135m NW	Unspecified Tank	1890	281703
I	135m W	Tanks	1956	291796
I	135m W	Tanks	1980	291796
I	135m W	Tanks	1976	291796
I	135m W	Tanks	1956	291796
I	136m W	Tanks	1994	291796
I	136m W	Tanks	1983	291796
I	136m W	Tanks	1994	291796
I	136m W	Tanks	1992	291796
K	139m E	Tanks	1938	286732
K	141m NE	Unspecified Tank	1887	282011
K	144m NE	Unspecified Tank	1890	282012
I	145m NW	Tanks	1938	286733
I	151m NW	Unspecified Tank	1980	301064
I	151m NW	Unspecified Tank	1976	301064
I	152m NW	Unspecified Tank	1983	301064
I	152m NW	Unspecified Tank	1994	301064
I	152m NW	Unspecified Tank	1994	301064
I	152m NW	Unspecified Tank	1992	301064
I	153m NW	Unspecified Tank	1978	290332
I	153m NW	Unspecified Tank	1984	290332
S	153m S	Unspecified Tank	1979	298498
S	153m S	Unspecified Tank	1974	298498
S	154m S	Unspecified Tank	1984	298498
I	155m NW	Unspecified Tank	1978	282007
S	156m S	Unspecified Tank	1993	294652
S	156m S	Unspecified Tank	1993	294652
C	157m E	Unspecified Tank	1904	281682



ID	Location	Land Use	Date	Group ID
K	157m NE	Tanks	1993	298616
K	157m NE	Tanks	1993	298616
K	158m NE	Tanks	1978	298616
K	158m NE	Unspecified Tank	1956	291750
K	158m NE	Unspecified Tank	1956	291750
T	159m SE	Unspecified Tank	1956	300674
T	159m SE	Unspecified Tank	1956	300674
K	159m NE	Tanks	1985	293802
K	167m NE	Unspecified Tank	1956	289584
K	168m NE	Unspecified Tank	1956	289584
I	171m NW	Tanks	1978	299367
I	172m NW	Unspecified Tank	1978	282009
I	172m NW	Tanks	1984	299367
I	173m NW	Tanks	1993	299367
I	173m NW	Tanks	1994	299367
I	173m NW	Tanks	1993	299367
I	173m NW	Tanks	1994	299367
I	173m NW	Tanks	1992	299367
I	173m NW	Tanks	1993	299367
C	175m E	Unspecified Tank	1887	301974
C	175m E	Unspecified Tank	1890	301974
K	185m NE	Unspecified Tank	1993	293557
K	185m NE	Unspecified Tank	1993	293557
K	186m NE	Unspecified Tank	1956	293557
K	187m NE	Unspecified Tank	1978	293557
K	187m NE	Unspecified Tank	1956	293557
K	187m NE	Unspecified Tank	1985	293557
C	190m E	Unspecified Tank	1956	300549



ID	Location	Land Use	Date	Group ID
C	190m E	Unspecified Tank	1984	301263
C	191m E	Unspecified Tank	1993	290562
C	191m E	Unspecified Tank	1993	290562
C	191m E	Unspecified Tank	1979	296745
C	191m E	Unspecified Tank	1974	296745
C	191m E	Unspecified Tank	1956	296745
I	193m NW	Unspecified Tank	1937	282008
I	200m NW	Tanks	1978	298479
I	200m NW	Tanks	1956	298479
I	201m NW	Tanks	1956	298479
I	202m NW	Tanks	1937	298479
O	211m W	Unspecified Tank	1904	295209
I	211m NW	Unspecified Tank	1918	281710
O	211m W	Unspecified Tank	1887	295209
O	211m W	Unspecified Tank	1890	295209
C	212m E	Unspecified Tank	1984	301207
C	212m E	Unspecified Tank	1956	301207
C	212m E	Unspecified Tank	1993	297594
C	212m E	Unspecified Tank	1993	297594
C	212m E	Unspecified Tank	1979	301207
C	212m E	Unspecified Tank	1974	301207
C	212m E	Unspecified Tank	1956	301207
C	216m E	Unspecified Tank	1956	291654
C	216m E	Unspecified Tank	1984	291654
C	216m E	Unspecified Tank	1993	291654
C	216m E	Unspecified Tank	1993	291654
C	216m E	Unspecified Tank	1979	291654
C	216m E	Unspecified Tank	1974	291654



ID	Location	Land Use	Date	Group ID
C	216m E	Unspecified Tank	1956	291654
K	220m E	Unspecified Tank	1887	300728
K	220m E	Unspecified Tank	1890	300728
I	221m NW	Unspecified Tank	1978	300554
I	221m NW	Unspecified Tank	1956	300554
I	221m NW	Unspecified Tank	1956	300554
I	222m NW	Unspecified Tank	1978	293880
I	222m NW	Unspecified Tank	1956	293880
I	222m NW	Unspecified Tank	1956	293880
K	225m E	Unspecified Tank	1887	295723
K	225m E	Unspecified Tank	1890	295723
O	225m W	Unspecified Tank	1887	298488
O	226m W	Unspecified Tank	1890	298488
I	228m NW	Unspecified Tank	1887	282010
K	235m E	Unspecified Tank	1887	299572
K	236m E	Unspecified Tank	1890	299572
I	236m NW	Tanks	1937	286654
O	236m W	Unspecified Tank	1887	300493
O	237m W	Unspecified Tank	1890	300047
C	240m E	Unspecified Tank	1904	281683
K	241m E	Unspecified Tank	1890	282013
K	245m E	Unspecified Tank	1887	295264
K	247m E	Unspecified Tank	1890	295264
C	249m E	Tanks	1956	293725
C	249m E	Tanks	1956	293725
I	250m NW	Unspecified Tank	1937	282006
C	251m E	Unspecified Tank	1956	281684
C	251m E	Tanks	1956	286646



ID	Location	Land Use	Date	Group ID
K	261m E	Unspecified Tank	1887	296765
K	262m E	Unspecified Tank	1890	296765
O	262m W	Unspecified Tank	1890	281702
O	265m W	Unspecified Tank	1887	289608
O	266m W	Unspecified Tank	1890	289608
K	269m NE	Unspecified Tank	1978	293244
K	270m NE	Unspecified Tank	1985	293244
Z	271m NE	Unspecified Tank	1889	282002
K	276m NE	Tanks	1978	293497
K	277m NE	Tanks	1985	293497
O	284m W	Tanks	1887	286648
O	285m W	Unspecified Tank	1887	292230
O	285m W	Unspecified Tank	1890	297602
O	286m W	Unspecified Tank	1890	299910
6	288m S	Unspecified Tank	1890	281692
O	288m W	Tanks	1887	286649
O	289m W	Unspecified Tank	1890	296797
O	289m W	Unspecified Tank	1918	296797
O	289m W	Unspecified Tank	1890	281701
O	297m W	Unspecified Tank	1980	290545
O	297m W	Unspecified Tank	1976	290545
O	297m W	Unspecified Tank	1983	290545
O	298m W	Unspecified Tank	1994	290545
O	298m W	Unspecified Tank	1994	290545
O	298m W	Unspecified Tank	1992	290545
O	307m W	Unspecified Tank	1887	292287
O	308m W	Unspecified Tank	1890	299131
C	315m E	Tanks	1956	296519



ID	Location	Land Use	Date	Group ID
C	316m E	Tanks	1956	296519
C	324m E	Tanks	1956	299384
C	324m E	Tanks	1956	299384
C	325m E	Tanks	1956	291336
C	325m E	Tanks	1956	291336
O	326m W	Tanks	1918	286647
C	327m E	Tanks	1955	291336
C	327m E	Tanks	1955	291336
AH	349m NW	Unspecified Tank	1993	289944
AH	349m NW	Unspecified Tank	1994	289944
AH	349m NW	Unspecified Tank	1993	289944
AH	349m NW	Unspecified Tank	1994	289944
AH	350m NW	Unspecified Tank	1992	298131
AH	350m NW	Unspecified Tank	1993	294626
AH	351m NW	Unspecified Tank	1984	291312
AL	358m NE	Unspecified Tank	1937	282005
AL	361m NE	Unspecified Tank	1956	301785
AL	362m NE	Unspecified Tank	1956	301785
C	379m E	Unspecified Tank	1979	295569
C	379m E	Unspecified Tank	1972	295569
AO	380m E	Unspecified Tank	1955	291819
AO	380m E	Unspecified Tank	1955	288837
AO	380m E	Unspecified Tank	1979	294682
AO	380m E	Unspecified Tank	1972	291710
AO	380m E	Unspecified Tank	1992	293038
L	384m E	Unspecified Tank	1955	289877
L	384m E	Unspecified Tank	1955	300897
AL	393m NE	Tanks	1937	286731



ID	Location	Land Use	Date	Group ID
AL	394m NE	Unspecified Tank	1956	293514
AL	395m NE	Unspecified Tank	1956	293514
AL	398m NE	Unspecified Tank	1917	301494
AL	399m NE	Unspecified Tank	1956	298303
AL	399m NE	Unspecified Tank	1956	298303
AL	402m NE	Tanks	1917	294617
AL	403m NE	Tanks	1956	296673
AL	403m NE	Tanks	1956	296673
P	414m N	Unspecified Tank	1978	282003
P	426m N	Tanks	1978	286729
C	427m E	Tanks	1955	298234
C	427m E	Unspecified Tank	1979	292400
C	427m E	Unspecified Tank	1972	292400
C	427m E	Unspecified Tank	1992	292400
C	427m E	Tanks	1955	298234
P	431m N	Unspecified Tank	1978	282004
Q	435m NE	Tanks	1955	297566
Q	435m NE	Tanks	1955	297566
AS	444m W	Oil Tanks	1918	285770
AB	450m SE	Unspecified Tank	1888	281691
J	492m E	Unspecified Tank	1979	289080
J	492m E	Unspecified Tank	1972	289895
J	493m E	Unspecified Tank	1992	289495
J	497m E	Unspecified Tank	1890	295825
J	497m E	Unspecified Tank	1887	300586
J	498m E	Unspecified Tank	1887	281707

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

156

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 38**

ID	Location	Land Use	Date	Group ID
C	28m E	Electricity Substation	1984	172997
C	39m E	Electricity Substation	1956	182547
C	40m E	Electricity Substation	1979	182547
C	40m E	Electricity Substation	1974	182547
C	40m E	Electricity Substation	1956	182547
C	49m E	Electricity Substation	1993	172327
C	49m E	Electricity Substation	1993	172005
K	79m N	Electricity Substation	1993	177882
K	79m N	Electricity Substation	1993	177882
K	81m N	Electricity Substation	1956	184816
K	81m N	Electricity Substation	1978	177882
K	81m N	Electricity Substation	1956	184816
K	82m N	Electricity Substation	1985	177882
C	99m E	Electricity Substation	1979	173209
C	99m E	Electricity Substation	1974	172383
C	99m E	Electricity Substation	1956	171870
C	99m E	Electricity Substation	1956	172307
C	99m E	Electricity Substation	1993	172047
C	99m E	Electricity Substation	1993	172623
C	99m E	Electricity Substation	1984	172203
C	119m E	Electricity Substation	1993	173162
C	119m E	Electricity Substation	1993	173423
C	119m E	Electricity Substation	1956	173152



ID	Location	Land Use	Date	Group ID
C	119m E	Electricity Substation	1984	172574
C	120m E	Electricity Substation	1979	172382
C	120m E	Electricity Substation	1974	173211
C	120m E	Electricity Substation	1956	172398
C	172m E	Electricity Substation	1984	168976
C	188m E	Electricity Substation	1984	179152
C	188m E	Electricity Substation	1993	179152
C	188m E	Electricity Substation	1993	179152
C	189m E	Electricity Substation	1979	179152
C	189m E	Electricity Substation	1974	179152
C	189m E	Electricity Substation	1956	179152
I	189m NW	Electricity Substation	1994	180110
I	189m NW	Electricity Substation	1992	180110
I	193m NW	Electricity Substation	1994	168977
R	196m SE	Electricity Substation	1984	174453
R	213m SE	Electricity Substation	1956	183392
R	213m SE	Electricity Substation	1979	183392
R	213m SE	Electricity Substation	1974	183392
R	213m SE	Electricity Substation	1956	183392
R	214m SE	Electricity Substation	1993	183392
R	214m SE	Electricity Substation	1993	183392
R	214m SE	Electricity Substation	1956	185541
R	214m SE	Electricity Substation	1984	185541
R	215m SE	Electricity Substation	1979	185541
R	215m SE	Electricity Substation	1974	185541
R	215m SE	Electricity Substation	1956	185541
C	216m E	Electricity Substation	1984	179457
R	216m SE	Electricity Substation	1993	185541



ID	Location	Land Use	Date	Group ID
R	216m SE	Electricity Substation	1993	185541
C	216m E	Electricity Substation	1993	179457
C	216m E	Electricity Substation	1993	179457
C	216m E	Electricity Substation	1979	179457
C	216m E	Electricity Substation	1974	179457
C	216m E	Electricity Substation	1956	179457
I	269m NW	Electricity Substation	1993	184777
I	269m NW	Electricity Substation	1994	184777
I	269m NW	Electricity Substation	1993	184777
I	269m NW	Electricity Substation	1994	184777
I	269m NW	Electricity Substation	1992	184777
I	269m NW	Electricity Substation	1993	184777
I	269m NW	Electricity Substation	1984	184777
C	278m E	Electricity Substation	1984	186934
C	279m E	Electricity Substation	1956	172736
C	279m E	Electricity Substation	1979	177757
C	279m E	Electricity Substation	1974	177757
C	279m E	Electricity Substation	1956	177757
C	290m E	Electricity Substation	1993	173163
C	290m E	Electricity Substation	1993	173061
AG	344m NW	Electricity Substation	1978	176580
AG	344m NW	Electricity Substation	1985	176384
AG	345m NW	Electricity Substation	1993	176580
AG	345m NW	Electricity Substation	1993	176580
AI	351m N	Electricity Substation	1985	180234
AI	351m N	Electricity Substation	1993	180234
AI	351m N	Electricity Substation	1978	180234
AI	351m N	Electricity Substation	1993	180234



ID	Location	Land Use	Date	Group ID
L	361m E	Power House	1937	171539
AC	366m S	Electricity Substation	1984	176414
AC	366m S	Electricity Substation	1979	176414
AC	367m S	Electricity Substation	1993	176414
AC	367m S	Electricity Substation	1993	176414
AM	378m NW	Electricity Substation	1978	174955
AM	378m NW	Electricity Substation	1956	174955
AM	379m NW	Electricity Substation	1956	174955
AN	379m S	Electricity Substation	1983	174801
AN	379m S	Electricity Substation	1983	174801
AN	379m S	Electricity Substation	1991	174801
AM	379m NW	Electricity Substation	1984	174955
L	380m E	Electricity Substation	1993	187120
L	380m E	Electricity Substation	1993	187120
L	380m E	Electricity Substation	1973	187252
AM	382m NW	Electricity Substation	1993	184756
AM	382m NW	Electricity Substation	1994	184756
AM	382m NW	Electricity Substation	1993	184756
AM	382m NW	Electricity Substation	1994	184756
AM	382m NW	Electricity Substation	1992	184756
AM	382m NW	Electricity Substation	1993	184756
AN	384m S	Electricity Substation	1972	176091
AP	397m SW	Electricity Substation	1980	183361
AP	397m SW	Electricity Substation	1976	183361
AP	397m SW	Electricity Substation	1983	183361
AF	397m S	Gas Maintenance Department	1956	177350
AP	397m SW	Electricity Substation	1994	183361
AP	397m SW	Electricity Substation	1994	183361



ID	Location	Land Use	Date	Group ID
AP	397m SW	Electricity Substation	1992	183361
AF	397m S	Gas Maintenance Department	1956	177350
Q	412m NE	Electricity Substation	1973	168979
Q	423m NE	Electricity Substation	1993	173841
Q	423m NE	Electricity Substation	1993	173841
AR	423m N	Electricity Substation	1993	175510
AR	423m N	Electricity Substation	1993	175510
AR	424m N	Electricity Substation	1985	175510
AR	424m N	Electricity Substation	1978	175510
AU	437m W	Electricity Substation	1978	177553
AU	437m W	Electricity Substation	1971	177553
AU	438m W	Electricity Substation	1983	177553
AU	438m W	Electricity Substation	1993	177553
AU	438m W	Electricity Substation	1993	177553
AU	438m W	Electricity Substation	1978	177553
AU	438m W	Electricity Substation	1994	177553
AU	438m W	Electricity Substation	1995	177553
AU	438m W	Electricity Substation	1983	186309
AU	438m W	Electricity Substation	1990	186309
AU	438m W	Electricity Substation	1994	177553
AU	438m W	Electricity Substation	1995	177553
AZ	468m SE	Electricity Substation	1983	181897
AZ	468m SE	Electricity Substation	1984	181897
AZ	468m SE	Electricity Substation	1989	181897
AZ	468m SE	Electricity Substation	1990	181897
AZ	468m SE	Electricity Substation	1979	181897
AZ	468m SE	Electricity Substation	1967	181897
AZ	468m SE	Electricity Substation	1993	181897



ID	Location	Land Use	Date	Group ID
AZ	468m SE	Electricity Substation	1994	181897
AZ	468m SE	Electricity Substation	1993	181897
AZ	468m SE	Electricity Substation	1994	181897
BA	470m NW	Electricity Substation	1993	181958
BA	470m NW	Electricity Substation	1992	181958
BA	470m NW	Electricity Substation	1993	181958
BA	471m NW	Electricity Substation	1993	180524
BA	472m NW	Electricity Substation	1978	181958
BA	472m NW	Electricity Substation	1984	181958
BA	473m NW	Electricity Substation	1994	184574
BA	473m NW	Electricity Substation	1994	184574
BC	481m S	Electricity Substation	1983	186775
BC	481m S	Electricity Substation	1984	186775
BC	481m S	Electricity Substation	1989	186775
BC	481m S	Electricity Substation	1990	186775
BC	482m S	Electricity Substation	1993	177213
BC	482m S	Electricity Substation	1994	177213
BC	482m S	Electricity Substation	1993	177213
BC	482m S	Electricity Substation	1994	177213
BC	483m S	Electricity Substation	1979	177213
BC	483m S	Electricity Substation	1967	177213

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

1

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 38**



ID	Location	Land Use	Date	Group ID
U	229m S	Service Garage	1956	3037

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	27
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Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 38**

ID	Location	Land Use	Date	Group ID
M	89m S	Garage	1992	56992
M	89m S	Garage	1980	58581
M	89m S	Garage	1976	58581
M	89m S	Garage	1983	55906
M	120m S	Vehicle Body Repair Works	1976	54977
V	189m SW	Garage	1994	57099
V	189m SW	Garage	1992	59247
V	189m SW	Garage	1994	59247
V	191m SW	Garage	1983	55566
V	208m SW	Garage	1980	57786
V	208m SW	Garage	1976	57786
U	228m S	Garage	1956	54572
U	229m S	Service Garage	1956	54970
I	248m NW	Garage	1993	60432
I	248m NW	Garage	1994	60432
I	248m NW	Garage	1992	60432
I	248m NW	Garage	1993	60432
I	248m NW	Garage	1993	60432
I	248m NW	Garage	1994	60432

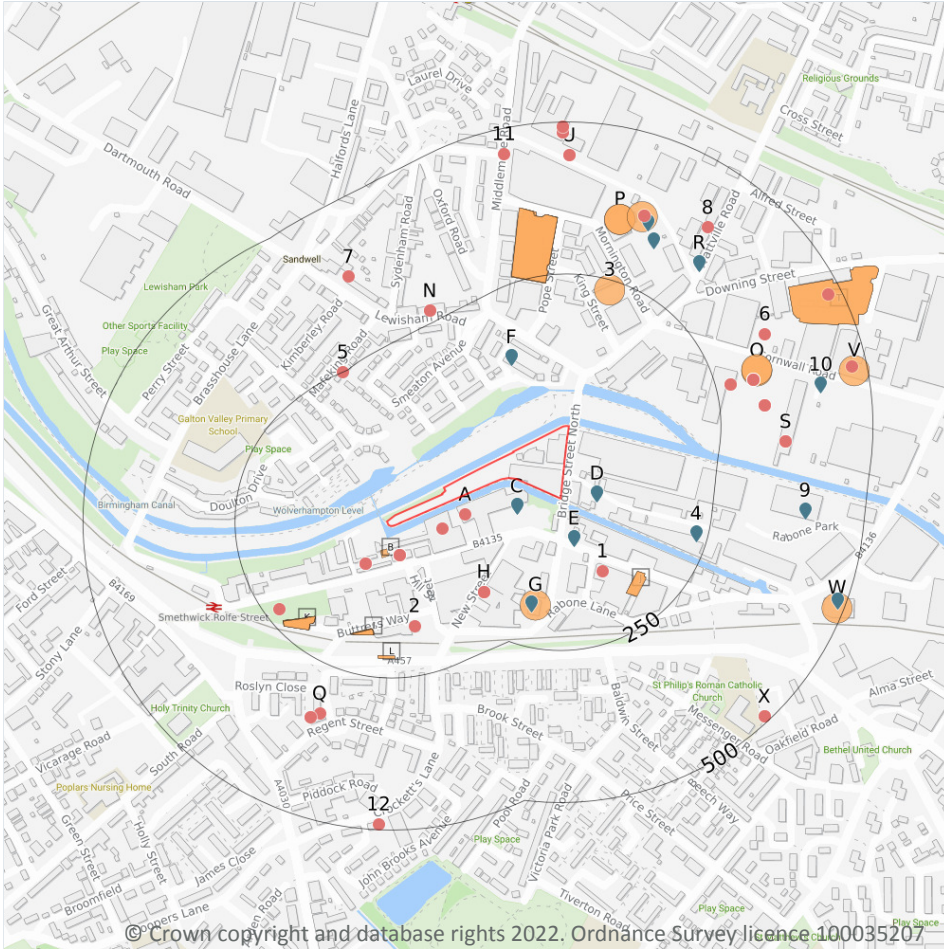


ID	Location	Land Use	Date	Group ID
I	248m NW	Garage	1978	57339
I	248m NW	Garage	1984	57005
AF	344m S	Garage	1956	56349
AF	368m S	Garage	1956	59647
AF	369m S	Garage	1972	59647
AF	369m S	Garage	1983	58158
AF	369m S	Garage	1983	58158
Q	412m NE	Vehicle Maintenance Depot	1973	54933

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

32

Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on **page 74**

ID	Location	Address	Further Details	Date
B	38m S	Site Address: N/A	Type of Site: Refuse Destroyer Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1904
G	155m S	Site Address: 2-4 Bridge Street, South, SMETHWICK, West Midlands, B66 3DR	Type of Site: Recycling Facilities Planning application reference: DC/07/47424 Description: Scheme comprises ELV (end of life vehicles) site and breaking of vans for spares for fleet maintenance (in conjunction with use in units 3/4). An application (ref: DC/07/47424) for detailed planning permission was refused by Sandwell B.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	-

ID	Location	Address	Further Details	Date
I	171m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1983
I	171m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1977
I	171m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1975
I	172m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1994
I	172m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1994
I	172m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1992
J	173m SE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1956
J	173m SE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1956
K	192m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1977



ID	Location	Address	Further Details	Date
K	192m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1975
K	192m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1983
K	193m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1994
K	193m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1994
K	193m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1992
3	208m N	Site Address: Unit 6, Land Adjacent, King Street, Smethwick, West Midlands, B66 2J	Type of Site: Waste Transfer Station Planning application reference: DC/15/57856 Description: Scheme comprises construction waste transfer station including office building, enclosed sorting building, waste storage bays and weigh bridge. The associated works include sewer systems, landscaping, infrastructure, enabling and access roads. Data source: Historic Planning Application Data Type: Point	-
L	213m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1977
L	213m S	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1975



ID	Location	Address	Further Details	Date
M	236m N	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1993
M	236m N	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1993
M	237m N	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1985
M	238m N	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1976
O	297m E	Site Address: Premier Works, Cornwall Road, Smethwick, West Midlands, B66 2JR	Type of Site: Waste Transfer Station Planning application reference: DC/14/56916 Description: Scheme comprises Proposed waste transfer station (building waste). The associated works include sewer systems, landscaping, infrastructure, enabling works, cable laying and access roads. Data source: Historic Planning Application Data Type: Point	24/06/2014
O	297m E	Site Address: Premier Works, Cornwall Road, Smethwick, West Midlands, B66 2JR	Type of Site: Waste Transfer Station Planning application reference: DC/14/57740 Description: Scheme comprises dismantling of scrap cars for off-site metal recycling, and covered ramped work area. The associated works include sewer systems, landscaping, infrastructure, enabling works, cable laying and access roads. Data source: Historic Planning Application Data Type: Point	31/03/2015
P	325m N	Site Address: Park Rose Ind Est, Unit 12A, Middlemore Road, Smethwick, WARLEY, West Midlands, B66 2DZ	Type of Site: Waste Transfer Station (cou) Planning application reference: DC/31652 Description: An application (ref: DC/31652) for Detailed Planning permission was submitted to Sandwell B.C. on 25th July 1995. Data source: Historic Planning Application Data Type: Point	-



ID	Location	Address	Further Details	Date
P	325m N	Site Address: Park Rise Industrial Estate, Middlemore Road, Smethwick, WARLEY, West Midlands, B66 2DZ	Type of Site: Waste Transfer Station Planning application reference: DC/97/33356 Description: Project comprises the storage of skips with the erection of a weighbridge of 53 sqm and office of 70 sqm. An application (ref: DC/97/33356) for Detailed Planning permission was submitted to Sandwell B.C. on 20th May 1997. Data source: Historic Planning Application Data Type: Point	-
P	340m N	Site Address: Yard C, Grinsells Skip Hire, Lt, Parkrose Industrial, Estate, Middlemore Road, SMETHWICK, West Midlands, B66 2DZ	Type of Site: Recycling Facility Planning application reference: DC/06/45673 Description: Scheme comprises installation of biomass combustion unit and waste to energy system for burning unreclaimable waste. An application (ref: DC/06/45673) for detailed planning permission was granted by Sandwell B.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	-
T	412m NE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1993
T	412m NE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1993
V	452m E	Site Address: N S A House, Cornwall Road, SMETHWICK, West Midlands, B66 2JR	Type of Site: Recycling Centre Planning application reference: DC/08/49829 Description: Scheme comprises change of use to recycling centre. An application (ref: DC/08/49829) for detailed planning permission was granted by Sandwell B.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	02/04/2009
W	464m E	Site Address: Unit 1, James Watt Industrial Park, Steel Bright Road, Smethwick, West Midlands, B66 2NW	Type of Site: Metals Recycling Facility Planning application reference: DC/18/62316 Description: Scheme comprises change of use to metals recycling facility with additional fire water tank, mobile generator and weighbridge. Data source: Historic Planning Application Data Type: Point	23/10/2018



This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m

20

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 74**

ID	Location	Details		
C	41m SW	Site Name: Dunn Bros (1995) Ltd Site Address: 40-41, Bridge Street North, Smethwick, West Midlands, B66 2BJ Correspondence Address: -	Type of Site: 75kte Materials Recycling Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DUN036 EPR reference: EA/EPR/BP3896SZ/S002 Operator: Dunn Bros (1995) Ltd Waste Management licence No: 100596 Annual Tonnage: 0	Issue Date: 15/01/2009 Effective Date: - Modified: - Surrendered Date: Oct 7 2010 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered
C	41m SW	Site Name: Dunn Bros (1995) Ltd Site Address: 40-41, Bridge Street North, Smethwick, West Midlands, B66 2BJ Correspondence Address: -	Type of Site: 75kte Materials Recycling Facility Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DUN036 EPR reference: EA/EPR/BP3896SZ/S002 Operator: Dunn Bros (1995) Ltd Waste Management licence No: 100596 Annual Tonnage: 0	Issue Date: 15/01/2009 Effective Date: - Modified: - Surrendered Date: Oct 7 2010 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered
D	58m E	Site Name: M K Salvage Site Address: Unit 5 Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BZ Correspondence Address: -	Type of Site: ELV Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MKA001 EPR reference: EA/EPR/YP3492FG/A001 Operator: M K Auto Salvage Waste Management licence No: 40293 Annual Tonnage: 2500	Issue Date: 11/04/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued



ID	Location	Details		
D	58m E	Site Name: Unit 5 Bridge Trading Estate Site Address: Unit 5 Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BZ Correspondence Address: -	Type of Site: ELV Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MID108 EPR reference: EA/EPR/BB3804CM/T001 Operator: Midland Autobreakers Smethwick Limited Waste Management licence No: 40293 Annual Tonnage: 2500	Issue Date: 11/04/2006 Effective Date: 06/08/2014 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
E	69m S	Site Name: Jones Of Smethwick Ltd Site Address: 89-91, Rolfe Street, Smethwick, Warley, West Midlands, B66 2AY Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JON001 EPR reference: EA/EPR/DP3296FN/A001 Operator: Jones of Smethwick Ltd Waste Management licence No: 42213 Annual Tonnage: 1700	Issue Date: 01/03/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
E	69m S	Site Name: Jones Of Smethwick Ltd Site Address: 88, Rolfe Street, Smethwick, Warley, West Midlands, B66 2AX Correspondence Address: 33, Heather Road, Warley, West Midlands, B17 7LN	Type of Site: Metal Recycling Site (mixed MRS's) Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: JON001 EPR reference: - Operator: Jones of Smethwick Ltd Waste Management licence No: 42213 Annual Tonnage: 0	Issue Date: 01/03/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
F	140m NW	Site Name: T J A Trading Ltd Site Address: Unit 28 A1 Trading Estate, Lewisham Road, Smethwick, Warley, West Midlands, B66 2BN Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TJA001 EPR reference: EA/EPR/DP3891FV/A001 Operator: T J A Trading Ltd Waste Management licence No: 42559 Annual Tonnage: 25000	Issue Date: 23/09/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired



ID	Location	Details		
F	140m NW	Site Name: T J A Trading Ltd Site Address: Unit 28 A1 Trading Estate, Lewisham Road, Smethwick, Warley, West Midlands, B66 2BN Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TJA001 EPR reference: EA/EPR/DP3891FV/A001 Operator: T J A Trading Ltd Waste Management licence No: 42559 Annual Tonnage: 25000	Issue Date: 23/09/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
G	179m S	Site Name: Pinpoint Breakers Site Address: Unit 2, Bridge Street South, Smethwick, Birmingham, West Midlands, B66 3DR Correspondence Address: -	Type of Site: 75kte Vehicle Depollution Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AUL001 EPR reference: EA/EPR/DP3096ET/A001 Operator: Aulakh Navpreet Waste Management licence No: 100982 Annual Tonnage: 74999	Issue Date: 15/06/2009 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
G	179m S	Site Name: Pinpoint Breakers Site Address: Unit 2, Bridge Street South, Smethwick, Birmingham, West Midlands, B66 3DR Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AUL001 EPR reference: EA/EPR/DP3096ET/V002 Operator: Aulakh Navpreet Waste Management licence No: 100982 Annual Tonnage: 4999	Issue Date: 15/06/2009 Effective Date: - Modified: 12/01/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified



ID	Location	Details		
4	230m E	Site Name: Midlands Auto Spares Ltd Site Address: Unit 44 Bridge Trading Est, Bridge Street North, Smethwick, Birmingham, West Midlands, B66 2BA Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MID109 EPR reference: EA/EPR/CB3009MT/V002 Operator: Midlands Auto Spares Limited Waste Management licence No: 401803 Annual Tonnage: 4999	Issue Date: 14/10/2014 Effective Date: - Modified: 25/08/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
P	335m NE	Site Name: Grinsells Skip Hire Site Address: Park Rose Industrial Estate, Unit C, Middlemore Road, Smethwick, West Midlands, B66 2DZ Correspondence Address: Park Rose Industrial Estate, Unit C, Middlemore Road, Smethwick, Warley, West Midlands, B66 2DZ	Type of Site: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRI001 EPR reference: - Operator: Grinsell Mr P Waste Management licence No: 42214 Annual Tonnage: 0	Issue Date: 01/03/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
R	342m NE	Site Name: A H Automotive Ltd Site Address: Unit 1, Wattville Road Ind Est, Smethwick, West Midlands, B66 2NT Correspondence Address: -	Type of Site: 75kte Vehicle Depollution Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AUT013 EPR reference: EA/EPR/EP3996EM/A001 Operator: A H Automotive Ltd Waste Management licence No: 101232 Annual Tonnage: 74999	Issue Date: 23/11/2009 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
R	342m NE	Site Name: A H Automotive Ltd Site Address: Unit 1, Wattville Road Ind Est, Smethwick, West Midlands, B66 2NT Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AUT013 EPR reference: EA/EPR/EP3996EM/V002 Operator: A H Automotive Ltd Waste Management licence No: 101232 Annual Tonnage: 4999	Issue Date: 23/11/2009 Effective Date: - Modified: 01/02/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked



ID	Location	Details		
P	359m N	Site Name: Grinsells Skip Hire Site Address: Park Rose Ind Est, Unit C, Middlemore Road, Smethwick, Warley, West Midlands, B66 2DZ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRI006 EPR reference: EA/EPR/HB3607GV/T001 Operator: Grinsells Waste Management Limited Waste Management licence No: 42214 Annual Tonnage: 24999	Issue Date: 01/03/1992 Effective Date: 08/01/2020 Modified: 03/06/2005 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
P	359m N	Site Name: Grinsells Skip Hire Site Address: Park Rose Ind Est, Unit C, Middlemore Road, Smethwick, Warley, West Midlands, B66 2DZ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRI001 EPR reference: EA/EPR/DP3696FJ/V002 Operator: Grinsell Mr P Waste Management licence No: 42214 Annual Tonnage: 24999	Issue Date: 01/03/1992 Effective Date: - Modified: 03/06/2005 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
9	401m E	Site Name: T & M Commercials Site Address: The Bridge Trading Estate, Yard C, Bridge Street North, Smethwick, West Midlands, B66 2BZ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TUR003 EPR reference: EA/EPR/YP3391FL/A001 Operator: Turton Mr J T Waste Management licence No: 42566 Annual Tonnage: 5000	Issue Date: 02/11/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired



ID	Location	Details		
10	419m E	Site Name: A - Z Recycling Services Site Address: N S A House, Cornwell Road, Smethwick, West Midlands, B66 2JR Correspondence Address: -	Type of Site: 75kte WEEE Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SIN017 EPR reference: EA/EPR/BP3298LJ/A001 Operator: Singh Harjinder Waste Management licence No: 100546 Annual Tonnage: 4999	Issue Date: 18/12/2008 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked
W	485m E	Site Name: Steel Bright Road Metal Recycling Facility Site Address: Unit 1, James Watt Industrial Park, Steel Bright Road, Smethwick, Birmingham, West Midlands, B66 2NW Correspondence Address: -	Type of Site: 75kte Metal Recycling Site Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DUN003 EPR reference: EA/EPR/GB3106HM/A001 Operator: Dunn Bros Recycling Ltd Waste Management licence No: 404744 Annual Tonnage: 74999	Issue Date: 19/11/2018 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
W	485m E	Site Name: Steel Bright Road Metal Recycling Facility Site Address: Unit 1, James Watt Industrial Park, Steel Bright Road, Smethwick, Birmingham, West Midlands, B66 2NW Correspondence Address: -	Type of Site: 75kte Metal Recycling Site Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DUN003 EPR reference: EA/EPR/GB3106HM/A001 Operator: Dunn Bros Recycling Ltd Waste Management licence No: 404744 Annual Tonnage: 74999	Issue Date: 19/11/2018 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m

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Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 74**



ID	Location	Site	Reference	Category	Sub-Category	Description
A	30m SE	-	WEX263898	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
A	37m SE	75, ROLFE STREET, SMETHWICK, B66 2AR	WEX124373	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	50m S	Unit 1, 80 Rolfe street, Smethwick, Birmingham, B66 2AR	WEX035099	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	50m S	Unit 1, 80 Rolfe street, Smethwick, Birmingham, B66 2AR	WEX035099	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	50m S	Unit 1, 80 Rolfe street, Smethwick, Birmingham, B66 2AR	WEX035099	Treating waste exemption	Not on a farm	Sorting mixed waste
B	50m S	Unit 1, 80 Rolfe street, Smethwick, Birmingham, B66 2AR	WEX035099	Treating waste exemption	Not on a farm	Manual treatment of waste
B	50m S	Unit 1, 80 Rolfe street, Smethwick, Birmingham, B66 2AR	WEX035099	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	50m S	Unit 1, 80 Rolfe street, Smethwick, Birmingham, B66 2AR	WEX035099	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	50m S	Unit 1, 80 Rolfe street, Smethwick, Birmingham, B66 2AR	WEX035099	Using waste exemption	Not on a farm	Use of waste derived biodiesel as fuel
B	50m S	80, Rolf Street, Unit H1, Smethwick, b662ar	WEX035883	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	75m SW	SMETHWICK ENTERPRISE CENTRE, UNIT 816-817, ROLFE STREET, SMETHWICK, B66 2AR	WEX077432	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	75m SW	SMETHWICK ENTERPRISE CENTRE, UNIT 816-817, ROLFE STREET, SMETHWICK, B66 2AR	WEX077432	Storing waste exemption	Not on a farm	Storage of waste in a secure place



ID	Location	Site	Reference	Category	Sub-Category	Description
B	75m SW	SMETHWICK ENTERPRISE CENTRE, UNIT 816-817, ROLFE STREET, SMETHWICK, B66 2AR	WEX077432	Treating waste exemption	Not on a farm	Sorting mixed waste
B	75m SW	SMETHWICK ENTERPRISE CENTRE, UNIT 816-817, ROLFE STREET, SMETHWICK, B66 2AR	WEX077432	Treating waste exemption	Not on a farm	Recovery of scrap metal
B	75m SW	SMETHWICK ENTERPRISE CENTRE, UNIT 816-817, ROLFE STREET, SMETHWICK, B66 2AR	WEX077417	Using waste exemption	Not on a farm	Use of waste in construction
1	138m SE	1-3 Rolfe Street SMETHWICK West Midlands B66 2AA	EPR/XE5886Q C/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
H	159m SE	3, NEW STREET, SMETHWICK, B66 2AJ	WEX292022	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
H	159m SE	-	WEX263895	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
H	159m SE	-	WEX263895	Storing waste exemption	Not on a farm	Storage of waste in a secure place
H	159m SE	3, NEW STREET, SMETHWICK, B66 2AJ	WEX124369	Storing waste exemption	Not on a farm	Storage of waste in a secure place
H	159m SE	3, NEW STREET, SMETHWICK, B66 2AJ	WEX124369	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
2	169m S	3, BUTTRESS WAY, SMETHWICK, B66 3DL	WEX230114	Using waste exemption	Not on a farm	Use of waste in construction
K	228m SW	-	WEX302534	Using waste exemption	Not on a Farm	Use of waste in construction
5	249m NW	New Build, Mafaking Road, Smethwick, B66 2BT	WEX083662	Using waste exemption	Not on a farm	Use of waste in construction
N	269m NW	Countryside Properties, Mafeking Road, Smethwick, West Midlands, B66 2DH	WEX079291	Treating waste exemption	Not on a farm	Screening and blending of waste



ID	Location	Site	Reference	Category	Sub-Category	Description
N	269m NW	Countryside Properties, Mafeking Road, Smethwick, West Midlands, B66 2DH	WEX079291	Using waste exemption	Not on a farm	Use of waste in construction
O	274m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/FF0230ZR /A001	Storing waste exemption	Non- Agricultural Waste Only	Storage of waste in a secure place
O	274m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/FF0230ZR /A001	Treating waste exemption	Non- Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/FF0008FK /A001	Disposing of waste exemption	Both agricultural and non- agricultural waste	Burning waste in the open
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/FF0008FK /A001	Treating waste exemption	Both agricultural and non- agricultural waste	Recovery of scrap metal
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Storing waste exemption	Both agricultural and non- agricultural waste	Storage of waste in secure containers
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Storing waste exemption	Both agricultural and non- agricultural waste	Storage of waste in a secure place
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Treating waste exemption	Both agricultural and non- agricultural waste	Sorting mixed waste
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Treating waste exemption	Both agricultural and non- agricultural waste	Preparatory treatments (baling, sorting, shredding etc)



ID	Location	Site	Reference	Category	Sub-Category	Description
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Screening and blending of waste
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste for a specified purpose
O	312m E	Premier Works Cornwall Road SMETHWICK West Midlands B66 2JR	EPR/HF0008X M/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste to manufacture finished goods
O	324m E	INCANITE FOUNDRY SITE Cornwall Road Smethwick West Midlands B66 2JR	EPR/XF0608M Y/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
O	324m E	INCANITE FOUNDRY SITE Cornwall Road Smethwick West Midlands B66 2JR	EPR/XF0608M Y/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
O	324m E	INCANITE FOUNDRY SITE Cornwall Road Smethwick West Midlands B66 2JR	EPR/XF0608M Y/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of textiles
O	324m E	INCANITE FOUNDRY SITE Cornwall Road Smethwick West Midlands B66 2JR	EPR/XF0608M Y/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
Q	330m S	SMETHWICK MEDICAL CENTRE PHARMACY, REGENT STREET, SMETHWICK, B66 3BQ	WEX143079	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
Q	342m S	-	WEX269964	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
Q	342m S	SMETHWICK MEDICAL CENTRE PHARMACY, REGENT STREET, SMETHWICK, B66 3BQ	WEX281809	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal



ID	Location	Site	Reference	Category	Sub-Category	Description
6	356m NE	Fast Safe Storage, Cornwall Road, Smethwick, Birmingham, B66 2JR	EA/EPR/VP388 5DE/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
S	357m E	14, CORNWALL ROAD INDUSTRIAL ESTATE, SMETHWICK, B66 2JT	WEX272154	Storing waste exemption	Not on a farm	Storage of waste in a secure place
S	357m E	14, CORNWALL ROAD INDUSTRIAL ESTATE, SMETHWICK, B66 2JT	WEX277479	Treating waste exemption	Not on a farm	Mechanical treatment of end-of-life tyres
S	357m E	14, CORNWALL ROAD INDUSTRIAL ESTATE, SMETHWICK, B66 2JT	WEX132257	Storing waste exemption	Not on a farm	Storage of waste in a secure place
S	357m E	14, CORNWALL ROAD INDUSTRIAL ESTATE, SMETHWICK, B66 2JT	WEX136000	Treating waste exemption	Not on a farm	Mechanical treatment of end-of-life tyres
P	367m N	YARD C, PARKROSE INDUSTRIAL ESTATE, MIDDLEMORE ROAD, SMETHWICK, B66 2DZ	WEX251315	Storing waste exemption	Not on a farm	Storage of waste in a secure place
P	367m N	YARD C, PARKROSE INDUSTRIAL ESTATE, MIDDLEMORE ROAD, SMETHWICK, B66 2DZ	WEX251315	Treating waste exemption	Not on a farm	Recovery of scrap metal
7	380m NW	90 Lewisham Road SMETHWICK West Midlands B66 2DD	EPR/XF0430Q K/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
8	398m NE	Unit 5 Wattville Road SMETHWICK West Midlands B66 2NU	EPR/NF0530C H/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
U	445m N	Park Rose Industrial Estate, Middlemore Road, Smethwick, B66 2DZ	WEX159346	Using waste exemption	Not on a Farm	Use of waste in construction
U	445m N	Park Rose Industrial Estate, Middlemore Road, Smethwick, B66 2DZ	WEX159346	Treating waste exemption	Not on a Farm	Screening and blending of waste
11	458m N	-	WEX253071	Treating waste exemption	Not on a farm	Mechanical treatment of end-of-life tyres
V	475m E	Nsa House, Cornwall Road, Birmingham, B66 2JR	EA/EPR/VP398 0SJ/A001	Treating waste exemption	Not on a Farm	Repair or refurbishment of WEEE

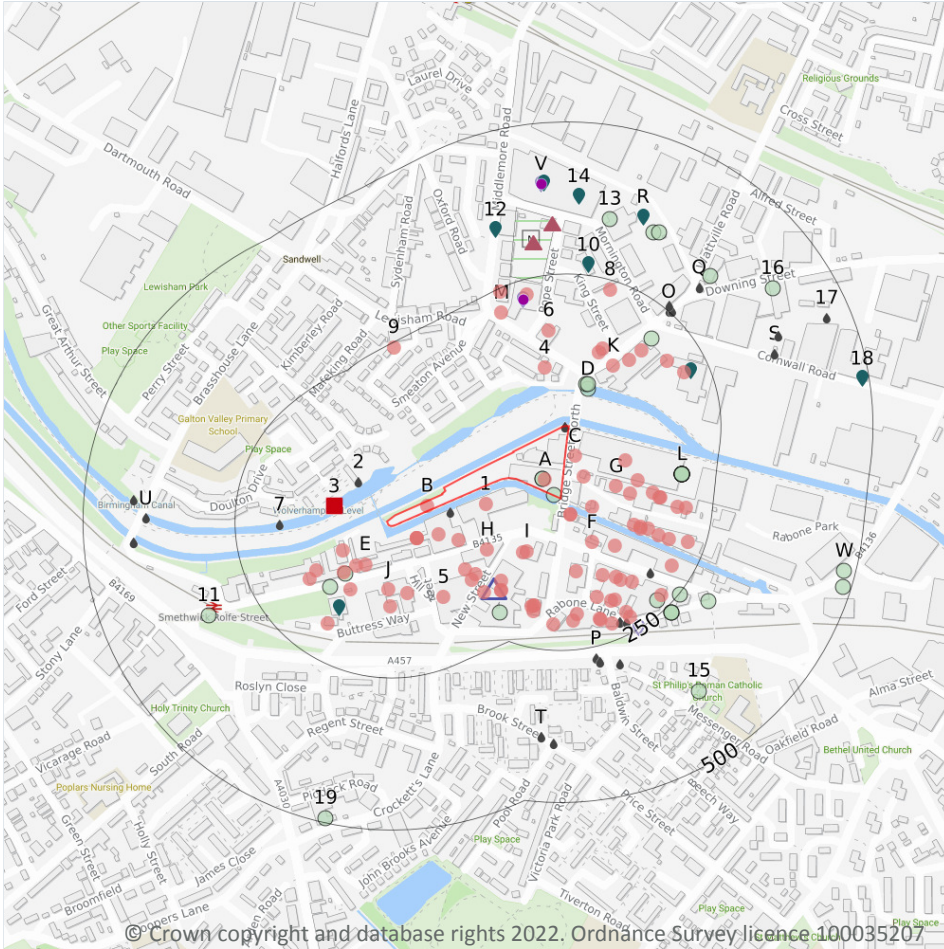


ID	Location	Site	Reference	Category	Sub-Category	Description
T	478m NE	HILL WORKS, DOWNING STREET, SMETHWICK, B66 2PG	WEX006874	Treating waste exemption	Not on a farm	Recovery of scrap metal
U	482m N	Parkrose Industrial Estate Unit 16 Middlemore Road SMETHWICK West Midlands B66 2DZ	EPR/VH0512YJ /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
U	482m N	Parkrose Industrial Estate Unit 16 Middlemore Road SMETHWICK West Midlands B66 2DZ	EPR/VH0512YJ /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
U	482m N	Parkrose Industrial Estate Unit 16 Middlemore Road SMETHWICK West Midlands B66 2DZ	EPR/VH0512YJ /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
U	482m N	Parkrose Industrial Estate Unit 16 Middlemore Road SMETHWICK West Midlands B66 2DZ	EPR/VH0512YJ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
U	491m N	Unit 27a, Parkrose Industrial Estate, Middlemore Road, Smethwick, B662DZ	WEX049770	Storing waste exemption	Not on a farm	Storage of waste in a secure place
U	491m N	Unit 27a, Parkrose Industrial Estate, Middlemore Road, Smethwick, B662DZ	WEX049770	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
X	491m SE	Rear Car Park of Crystal House oakfield close Smethwick west Midlands B663JT	EPR/BF0306N N/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
X	491m SE	Crystal House (car park at rear) Oakfield Road Smethwick West Midlands B66 3JT	EPR/LH0714Y D/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
12	491m S	Sandwell College - Smethwick Campus Crocketts Lane Smethwick B66 3BU	EPR/PE5857QL /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m

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Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Company	Address	Activity	Category
A	On site	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
B	On site	Travelling Crane	West Midlands, B66	Travelling Cranes and Gantries	Industrial Features
C	16m E	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
1	28m SE	A R Auto Salvage Ltd	Unit D, 80 Rolfe Street, Smethwick, West Midlands, B66 2AR	Vehicle Parts and Accessories	Motoring
A	30m SE	Har Charan Motors Midlands	82, Rolfe Street, Smethwick, West Midlands, B66 2AX	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	30m SE	Safewear Ltd	82, Rolfe Street, Smethwick, West Midlands, B66 2AX	Workwear	Industrial Products
C	34m E	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities
B	34m SE	V Tex	Unit 1a Bishopsgate Works, Rolfe Street, Smethwick, West Midlands, B66 2AR	Clothing, Components and Accessories	Consumer Products
B	34m SE	D P F Clean Emissions Ltd Dpf Cat Crt Cleaners	Unit 811 New Enterprise Workshop Centre, Rolfe Street, Smethwick, West Midlands, B66 2AR	Vehicle Repair, Testing and Servicing	Repair and Servicing
B	34m SE	Car Dpf Cleaning	Unit 11 New Enterprise Workshop Centre, Rolfe Street, Smethwick, West Midlands, B66 2AR	Vehicle Components	Industrial Products
B	42m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
A	53m E	Midlands Autobreakers	Unit 5 The Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BA	Scrap Metal Merchants	Recycling Services
B	64m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
E	75m SW	We Do Rentals	Smethwick Enterprise Centre, Rolfe Street, Smethwick, West Midlands, B66 2AR	Vehicle Hire and Rental	Hire Services
E	86m SW	Smethwick New Enterprise Centre	West Midlands, B66	Business Parks and Industrial Estates	Industrial Features
E	86m SW	Bearwood Contracts Flooring Ltd	Unit 403 Smethwick Enterprise Centre, Rolfe Street, Smethwick, West Midlands, B66 2AR	Construction Completion Services	Construction Services
F	89m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
G	89m E	Factory	West Midlands, B66	Unspecified Works Or Factories	Industrial Features



ID	Location	Company	Address	Activity	Category
H	97m SE	B K MOT Centre	161, Rolfe Street, Smethwick, West Midlands, B66 2AU	Vehicle Repair, Testing and Servicing	Repair and Servicing
G	99m E	Steel & Alloy Processing Ltd	Arcelormittal, Bridge Street North, Smethwick, West Midlands, B66 2BA	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
4	101m N	Tank	West Midlands, B66	Tanks (Generic)	Industrial Features
I	102m SW	Euro Trimmings Ltd	157-159, Rolfe Street, Smethwick, West Midlands, B66 2AU	Ropes, Nets and Cordage	Industrial Products
J	104m S	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
I	106m SW	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
E	107m SW	Duotech CCTV	Canalside House 67-68, Rolfe Street, Smethwick, West Midlands, B66 2AL	Electronic Equipment	Industrial Products
G	112m E	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
H	113m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
J	114m S	B T Trimmings & Packaging Ltd	175, Rolfe Street, Smethwick, West Midlands, B66 2AS	Packaging	Industrial Products
F	118m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	122m S	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
G	123m E	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities
K	123m NE	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities
E	124m SW	Midland Sprinter Specialist	212, Rolfe Street, Smethwick, West Midlands, B66 2AW	New Vehicles	Motoring
H	127m SE	Spectrum Motors Ltd	Unit 7 and 8 166-167, Rolfe Street, Smethwick, West Midlands, B66 2AU	Vehicle Repair, Testing and Servicing	Repair and Servicing



ID	Location	Company	Address	Activity	Category
F	128m E	Factory	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
K	131m N	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
H	132m SE	D M A Tyres	Unit 6, 168 Rolfe Street, Smethwick, West Midlands, B66 2AU	Vehicle Parts and Accessories	Motoring
J	133m S	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
K	139m NE	H D Simpsons Polishers	31, Downing Street, Smethwick, West Midlands, B66 2JH	Industrial Coatings and Finishings	Industrial Products
F	140m E	Kewal Bros Ltd	51 The Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BZ	Textiles, Fabrics, Silk and Machinery	Industrial Products
E	140m SW	Creative Balloons	16, Rolfe Street, Smethwick, West Midlands, B66 2AA	Giftware	Consumer Products
5	140m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	141m E	Factory	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	144m SE	Mastervent Ltd	2, Engine Street, Smethwick, West Midlands, B66 3DT	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
K	147m NE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
G	149m E	Multiquick Powder Coating Ltd	Unit 20-21 The Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BZ	Industrial Coatings and Finishings	Industrial Products
F	153m E	Hal Motors	50 The Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BZ	Vehicle Repair, Testing and Servicing	Repair and Servicing
H	153m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
E	157m SW	Doal & Sons	15, Rolfe Street, Smethwick, West Midlands, B66 2AA	Workwear	Industrial Products
F	158m SE	Autorama Garage	135, Rolfe Street, Smethwick, West Midlands, B66 2BB	Vehicle Repair, Testing and Servicing	Repair and Servicing
H	159m SE	Migrama Plastics	3, New Street, Smethwick, West Midlands, B66 2AJ	Recycling, Reclamation and Disposal	Recycling Services



ID	Location	Company	Address	Activity	Category
6	160m N	George Hook & Co	Victoria Palace, Pope Street, Smethwick, West Midlands, B66 2JP	Jewellery, Gems, Clocks and Watches	Consumer Products
G	161m E	Auto's R Us Ltd	Unit 23 Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BZ	Vehicle Repair, Testing and Servicing	Repair and Servicing
G	162m E	Bionic Car Sales Ltd	23 The Bridge Trading Estate, Bridge Street North, Smethwick, West Midlands, B66 2BZ	New Vehicles	Motoring
F	166m SE	Hassard Auto	137, Rolfe Street, Smethwick, West Midlands, B66 2BB	Vehicle Repair, Testing and Servicing	Repair and Servicing
H	167m SE	Daven Ports	11, New Street, Smethwick, West Midlands, B66 2AJ	Alcoholic Drinks	Foodstuffs
H	167m SE	West Midlands Plastic Centre Ltd	11, New Street, Smethwick, West Midlands, B66 2AJ	General Construction Supplies	Industrial Products
F	171m E	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	172m S	W A Garage	89, Rabone Lane, Smethwick, West Midlands, B66 3JJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
K	173m NE	Plastic Toughened Glass	Unit 1, Downing Street, Smethwick, West Midlands, B66 2JL	Glass	Industrial Products
F	179m SE	Rolfe Street a R C Ltd	144, Rolfe Street, Smethwick, West Midlands, B66 2BE	Vehicle Repair, Testing and Servicing	Repair and Servicing
F	181m S	Motor Hire Birmingham Ltd	Flat 2-4, Bridge Street South, Smethwick, West Midlands, B66 3DR	Vehicle Hire and Rental	Hire Services
F	181m S	Smethwick Trade Centre	4a, Bridge Street South, Smethwick, West Midlands, B66 3DR	Secondhand Vehicles	Motoring
F	184m S	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	187m SE	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	189m E	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	190m SE	Bobs Plating Ltd	83, Rabone Lane, Smethwick, West Midlands, B66 3JJ	Industrial Coatings and Finishings	Industrial Products



ID	Location	Company	Address	Activity	Category
E	190m SW	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	191m S	Pinpoint Vehicle Services	2, Bridge Street South, Smethwick, West Midlands, B66 3DR	Vehicle Repair, Testing and Servicing	Repair and Servicing
G	192m E	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	192m S	Midland Quilters	20a, Rabone Lane, Smethwick, West Midlands, B66 3JH	Clothing, Components and Accessories	Consumer Products
K	195m NE	Tank	West Midlands, B66	Tanks (Generic)	Industrial Features
F	202m S	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
G	206m E	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	208m S	M H L Motors	2, Rabone Lane, Smethwick, West Midlands, B66 3JH	Vehicle Repair, Testing and Servicing	Repair and Servicing
F	208m S	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
K	209m NE	Newby Foundries	1, Cornwall Road, Smethwick, West Midlands, B66 2JT	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
F	210m S	Robinson Pattern Equipment Ltd	26, Rabone Lane, Smethwick, West Midlands, B66 3JH	Special Purpose Machinery and Equipment	Industrial Products
M	212m NW	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities
F	213m SE	Step Ahead Proworkwear	82b, Rolfe Street, Smethwick, West Midlands, B66 2AX	Workwear	Industrial Products
F	216m SE	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities
F	221m E	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features
F	223m S	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features



ID	Location	Company	Address	Activity	Category
M	225m N	Birmingham Plating Co Ltd	142-152, Lewisham Road, Smethwick, West Midlands, B66 2ER	Industrial Coatings and Finishings	Industrial Products
F	225m SE	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities
F	229m SE	Body Plus Euro Ltd	Doal Trading Estate, Rolfe Street, Smethwick, West Midlands, B66 2AR	Clothing, Components and Accessories	Consumer Products
8	235m N	A1 Rapid Recovery	Car Park at Prestige Suite, King Street, Smethwick, West Midlands, B66 2JN	Vehicle Breakdown and Recovery Services	Personal, Consumer and Other Services
9	243m NW	Electricity Sub Station	West Midlands, B66	Electrical Features	Infrastructure and Facilities
M	245m NW	Works	West Midlands, B66	Unspecified Works Or Factories	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Company	Address	LPG	Status
H	160m SE	OBSOLETE	Rolfe Street, Smethwick, Birmingham, West Midlands, B66 2AU	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.



4.4 Gas pipelines

Records within 500m **0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m **0**

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m **1**

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Company	Address	Operational status	Tier
N	238m N	Calor Gas Limited	Calor Gas Limited, Smethwick, Mornington Road, Birmingham, West Midlands, B66 2JE	Current COMAH Site	COMAH Lower Tier Operator

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m **0**

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

2

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Details	
N	305m N	Application reference number: HS/013 Application status: Historical Consent Application date: 20/07/1999 Address: Calor Gas Ltd, Mornington Road, Smethwick, West Midlands, B66 2JE	Details: Storage of up to 195 tonnes of liquid petroleum gas. Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
N	333m N	Application reference number: No Details Application status: Approved Application date: No Details Address: Calor Gas Limited, Mornington Road, Smethwick, Birmingham, West Midlands, England, B66 2JE	Details: No Details Enforcement: No Details Date of enforcement: No Details Comment: No Details

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

5

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Details	
M	218m N	Operator: BIRMINGHAM PLATING COMPANY LTD Installation Name: SMETHWICK PLATERS 2 - EPR/BN1917IW Process: ASSOCIATED PROCESS Permit Number: BN1917IW Original Permit Number: BN1917IW	EPR Reference: - Issue Date: 24/11/2004 Effective Date: 24/11/2004 Last date noted as effective: 13/06/2022 Status: EFFECTIVE
M	218m N	Operator: BIRMINGHAM PLATING COMPANY LTD Installation Name: SMETHWICK PLATERS 2 - EPR/BN1917IW Process: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M Permit Number: BN1917IW Original Permit Number: BN1917IW	EPR Reference: - Issue Date: 24/11/2004 Effective Date: 24/11/2004 Last date noted as effective: 13/06/2022 Status: EFFECTIVE
F	248m SE	Operator: BOB'S PLATING LIMITED Installation Name: RAYBONE LANE PLATERS Process: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M Permit Number: QP3031PW Original Permit Number: QP3031PW	EPR Reference: - Issue Date: 24/11/2004 Effective Date: 24/11/2004 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
F	248m SE	Operator: BOB'S PLATING LIMITED Installation Name: RAYBONE LANE PLATERS - EPR/QP3031PW Process: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M Permit Number: JP3438CR Original Permit Number: QP3031PW	EPR Reference: - Issue Date: 01/05/2012 Effective Date: 01/05/2012 Last date noted as effective: 13/06/2022 Status: EFFECTIVE
V	399m N	Operator: IONIC METAL TREATMENTS LIMITED Installation Name: SMETHWICK METAL TREATMENT Process: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M Permit Number: HP3436GW Original Permit Number: HP3436GW	EPR Reference: EA/EPR/HP3436GW/A001 Issue Date: 25/10/2009 Effective Date: 26/10/2009 Last date noted as effective: 13/06/2022 Status: EFFECTIVE

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

8

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 92**



ID	Location	Address	Details	
E	158m SW	Trucube Ltd, 212 Rolfe Street, Smethwick, West Midlands, B66 2AW	Process: Use of Bulk Cement Status: Revoked Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
K	219m NE	Newby Foundries Ltd (Steel Castings Div), Cornwall Road, Smethwick, B66 2JR	Process: Boiler & Furnace Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
10	266m N	H.S. Richards Ltd, 22 Downing Street, Smethwick, West Midlands, B66 2JW	Process: Coating Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
12	342m N	Interleasing National Vehicle Refurbishment Centre, Middlemore Road, Smethwick, West Midlands, B66 2DZ	Process: Respraying of Road Vehicles Status: Revoked Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
R	364m N	Grinsell's Skip Hire Ltd, Parkrose Industrial Estate, Middlemore Road, Smethwick, West Midlands, B66 2DZ	Process: Other Mineral Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
14	378m N	Masterlease Ltd, Middlemore Road, Smethwick, West Midlands, B66 2DZ	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
V	401m N	Komfort Workspace Plc, Globe House, Park Rose Industrial Estate, Middlemore Road, Smethwick, B66 2DR	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
18	488m E	Incanite Foundries Ltd, Cornwall Road, Smethwick, West Midlands, B66 2JR	Process: Boiler & Furnace Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.



4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

32

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Address	Details	
C	On site	MULTIPLE SWS'S, WARLEY, 74 OUTLETS!	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: T/08/02521/O Permit Version: 1 Receiving Water: VARIOUS F.WATER AND CANALS	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: 27/03/2000
C	On site	MULTIPLE SWS'S, WARLEY, 74 OUTLETS!	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: T/08/02521/O Permit Version: 1 Receiving Water: VARIOUS F.WATER AND CANALS	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: 27/03/2000
B	16m SE	MULTIPLE SWS'S, WARLEY, 74 OUTLETS!	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: T/08/02521/O Permit Version: 1 Receiving Water: VARIOUS F.WATER AND CANALS	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: 27/03/2000
2	80m NW	RMI SMETHWICK 1984 LTD, MAFEKING ROAD, SMETHWICK	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: T/08/10427/T Permit Version: 1 Receiving Water: B'HAM/WOLVERHAMPTON CANAL	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 14/08/1986 Effective Date: 14/08/1986 Revocation Date: 27/01/1994



ID	Location	Address	Details	
7	177m W	BROCKHOUSE DISTRICT STEEL LTD, BRASSHOUSE LANE, SMETHWICK	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: T/08/07455/T Permit Version: 1 Receiving Water: B'HAM/WOLVERHAMPTON CANAL	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 28/11/1977 Effective Date: 28/11/1977 Revocation Date: 30/10/1989
F	192m SE	ROLFE STREET/ENGINE STREET JCT SO, SMETHWICK	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/21326/O Permit Version: 1 Receiving Water: THIMBLEMILL BROOK	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 18/03/1992 Effective Date: 18/03/1992 Revocation Date: 31/03/2003
F	225m SE	RABONE LANE (NO.1) CSO, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3JH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/22258/O Permit Version: 1 Receiving Water: THIMBLEMILL BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 01/03/1993 Effective Date: 01/03/1993 Revocation Date: 30/03/2003
F	225m SE	RABONE LANE (NO.1) CSO, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3JH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35705/O Permit Version: 1 Receiving Water: THIMBLEMILL BROOK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 15/07/2002 Effective Date: 31/03/2003 Revocation Date: 06/03/2018
F	225m SE	RABONE LANE (NO.1) CSO, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3JH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35705/O Permit Version: 2 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 07/03/2018 Effective Date: 07/03/2018 Revocation Date: 30/03/2018
F	225m SE	RABONE LANE (NO.1) CSO, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3JH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35705/O Permit Version: 3 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 07/03/2018 Effective Date: 31/03/2018 Revocation Date: -
F	229m SE	MULTIPLE SWS'S, WARLEY, 74 OUTLETS!	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: T/08/02521/O Permit Version: 1 Receiving Water: VARIOUS F.WATER AND CANALS	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: 27/03/2000



ID	Location	Address	Details	
O	249m NE	MULTIPLE SWS'S, WARLEY, 74 OUTLETS!	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: T/08/02521/O Permit Version: 1 Receiving Water: VARIOUS F.WATER AND CANALS	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: 27/03/2000
O	253m NE	DOWNING STREET CSO, DOWNING STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2NT	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35702/O Permit Version: 2 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 07/03/2018 Effective Date: 07/03/2018 Revocation Date: 30/03/2018
O	253m NE	DOWNING STREET CSO, DOWNING STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2NT	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35702/O Permit Version: 3 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 07/03/2018 Effective Date: 31/03/2018 Revocation Date: -
O	257m NE	DOWNING STREET CSO, DOWNING STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2NT	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35702/O Permit Version: 1 Receiving Water: HOCKLEY BROOK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 15/07/2002 Effective Date: 31/08/2003 Revocation Date: 06/03/2018
P	269m S	BALDWIN STREET CSO, BALDWIN STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3RP	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35698/O Permit Version: 1 Receiving Water: THIMBLEMILL BROOK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 15/07/2002 Effective Date: 31/03/2003 Revocation Date: 04/03/2018
P	276m S	BALDWIN STREET CSO, BALDWIN STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3RP	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35698/O Permit Version: 2 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 05/03/2018 Effective Date: 05/03/2018 Revocation Date: 30/03/2018
P	276m S	BALDWIN STREET CSO, BALDWIN STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3RP	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35698/O Permit Version: 3 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 05/03/2018 Effective Date: 31/03/2018 Revocation Date: -



ID	Location	Address	Details	
P	290m S	BALDWIN STREET CSO, BALDWIN STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 3RP	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/22257/O Permit Version: 1 Receiving Water: THIMBLEMILL BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 22/02/1993 Effective Date: 22/02/1993 Revocation Date: 30/03/2003
Q	312m NE	DOWNING STREET CSO, DOWNING STREET, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2NT	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/21054/O Permit Version: 1 Receiving Water: HOCKLEY BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 25/01/1992 Effective Date: 25/01/1992 Revocation Date: 30/08/2003
S	358m E	CORNWALL ROAD CSO, CORNWALL ROAD, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2JR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35701/O Permit Version: 2 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 07/03/2018 Effective Date: 07/03/2018 Revocation Date: 30/03/2018
S	358m E	CORNWALL ROAD CSO, CORNWALL ROAD, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2JR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35701/O Permit Version: 3 Receiving Water: HOCKLEY BROOK	Status: VARIED UNDER EPR 2010 Issue date: 07/03/2018 Effective Date: 31/03/2018 Revocation Date: -
S	374m NE	CORNWALL ROAD CSO, CORNWALL ROAD, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2JR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/21050/O Permit Version: 1 Receiving Water: HOCKLEY BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 25/01/1992 Effective Date: 25/01/1992 Revocation Date: 30/03/2003
S	374m NE	CORNWALL ROAD CSO, CORNWALL ROAD, SMETHWICK, SANDWELL, WEST MIDLANDS, B66 2JR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/35701/O Permit Version: 1 Receiving Water: HOCKLEY BROOK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 15/07/2002 Effective Date: 31/03/2003 Revocation Date: 06/03/2018
T	394m S	MULTIPLE SWS'S, WARLEY, 74 OUTLETS!	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: T/08/02521/O Permit Version: 1 Receiving Water: VARIOUS F.WATER AND CANALS	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: 27/03/2000



ID	Location	Address	Details	
T	394m S	MULTIPLE SWS'S, WARLEY, 74 OUTLETS!	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: T/08/02521/O Permit Version: 1 Receiving Water: VARIOUS F.WATER AND CANALS	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: 27/03/2000
U	397m W	HIGH STREET/BRASSHOUSE LANE, (SEVERN TRENT WATER LIMITED), SMETHWICK, WEST MIDLANDS	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/30124/O Permit Version: 1 Receiving Water: BIRMINGHAM/WOLVERHAMPTON CANAL	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 30/06/1995 Effective Date: 30/06/1995 Revocation Date: 04/02/1999
T	403m S	BROOK STREET/PRICE STREET, SMETHWICK	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/21327/O Permit Version: 1 Receiving Water: THIMBLEMILL BROOK IN CULVERT	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 18/03/1992 Effective Date: 18/03/1992 Revocation Date: 31/03/2003
U	418m W	BRASSHOUSE LANE, (SEVERN TRENT WATER LIMITED), SMETHWICK	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/30119/O Permit Version: 1 Receiving Water: BIRMINGHAM/WOLVERHAMPTON CANAL	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 30/06/1995 Effective Date: 30/06/1995 Revocation Date: 18/12/1998
U	418m W	STONY LANE/CHURCH HL ST, SMETHW, STONY LANE / CHURCH HILL STREET, SMETHWICK, WEST MIDLANDS	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/30125/O Permit Version: 1 Receiving Water: BIRMINGHAM/WOLVERHAMPTON CANAL	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 30/06/1995 Effective Date: 30/06/1995 Revocation Date: 18/12/1998
U	418m W	STONY LANE/HIGH STREET, BIRMINGHAM	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: T/08/30120/O Permit Version: 1 Receiving Water: BIRMINGHAM/WOLVERHAMPTON CANAL	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 30/06/1995 Effective Date: 30/06/1995 Revocation Date: 02/12/1998



ID	Location	Address	Details	
17	459m NE	METRO WAY/DOWNING STREET, SMETHWICK, WARLEY, WEST MIDLANDS	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: T/08/22646/T Permit Version: 1 Receiving Water: HOCKLEY BROOK (TAME)	Status: SURRENDERED UNDER EPR 2010 Issue date: 11/11/1993 Effective Date: 11/11/1993 Revocation Date: 16/12/2015

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
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Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0
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Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m	1
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Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Name	Status	Receiving Water	Authorised Substances
3	91m W	R.m.i. Smethwick, Henley Foundry, Smethwick	Not Active	-	-

This data is sourced from the Environment Agency and Natural Resources Wales.



4.17 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

38

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 92**

ID	Location	Details	
A	On site	Incident Date: 09/08/2001 Incident Identification: 23166 Pollutant: Specific Waste Materials Pollutant Description: Asbestos	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	On site	Incident Date: 19/12/2002 Incident Identification: 126790 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	On site	Incident Date: 04/10/2002 Incident Identification: 112573 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
D	68m NE	Incident Date: 30/05/2003 Incident Identification: 161910 Pollutant: Sewage Materials Pollutant Description: Grey Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
D	74m NE	Incident Date: 08/05/2003 Incident Identification: 156726 Pollutant: Sewage Materials Pollutant Description: Grey Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
D	75m NE	Incident Date: 23/05/2003 Incident Identification: 160339 Pollutant: Specific Waste Materials Pollutant Description: Clinical Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

ID	Location	Details	
E	107m SW	Incident Date: 30/07/2001 Incident Identification: 20156 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other Animal Matter	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
E	139m SW	Incident Date: 13/03/2002 Incident Identification: 63804 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 21/08/2001 Incident Identification: 26154 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 22/08/2001 Incident Identification: 26155 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 18/07/2001 Incident Identification: 17414 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 17/07/2001 Incident Identification: 17419 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 18/07/2001 Incident Identification: 17409 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 20/07/2001 Incident Identification: 17851 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 11/07/2001 Incident Identification: 15662 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 11/07/2001 Incident Identification: 15663 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)



ID	Location	Details	
L	194m E	Incident Date: 09/08/2001 Incident Identification: 23476 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 09/08/2001 Incident Identification: 23473 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 19/07/2001 Incident Identification: 17839 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	194m E	Incident Date: 17/08/2001 Incident Identification: 25995 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
K	197m NE	Incident Date: 25/02/2003 Incident Identification: 139097 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
H	199m SE	Incident Date: 24/07/2001 Incident Identification: 18728 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	230m SE	Incident Date: 12/07/2001 Incident Identification: 15859 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	252m SE	Incident Date: 18/07/2001 Incident Identification: 17498 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	262m SE	Incident Date: 09/07/2001 Incident Identification: 14988 Pollutant: Other Pollutant Pollutant Description: Noise	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	262m SE	Incident Date: 10/07/2001 Incident Identification: 15392 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)



ID	Location	Details	
F	262m SE	Incident Date: 10/07/2001 Incident Identification: 15392 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	295m SE	Incident Date: 15/08/2001 Incident Identification: 24444 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
11	330m SW	Incident Date: 07/06/2003 Incident Identification: 164023 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
Q	339m NE	Incident Date: 28/07/2003 Incident Identification: 177253 Pollutant: Oils and Fuel Pollutant Description: Lubricating Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
13	347m N	Incident Date: 09/07/2001 Incident Identification: 14820 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
R	347m NE	Incident Date: 20/08/2001 Incident Identification: 25478 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
R	351m NE	Incident Date: 20/08/2001 Incident Identification: 25388 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
15	389m SE	Incident Date: 01/05/2002 Incident Identification: 75981 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
16	404m NE	Incident Date: 11/10/2003 Incident Identification: 195599 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)



ID	Location	Details	
W	481m E	Incident Date: 01/08/2002 Incident Identification: 96391 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
W	486m E	Incident Date: 25/09/2001 Incident Identification: 32685 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
19	491m S	Incident Date: 02/10/2002 Incident Identification: 111965 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

2

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 92**

ID: M, Location: 219m N, Permit: BN1917IW
 Operator: Birmingham Plating Company Ltd
 Activity: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M
 Address: Smethwick Platers 142 to 152 Lewisham Road Smethwick West Midlands B66 2ER
 Sector: Metals, Sub-sector: Surface treatment
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Cadmium	1kg	Below Reporting Threshold
Wastewater	Chromium	20kg	Below Reporting Threshold
Wastewater	Mercury	0.1kg	Below Reporting Threshold
Wastewater	Nickel	20kg	Below Reporting Threshold
Wastewater	Zinc	100kg	Below Reporting Threshold



ID: V, Location: 400m N, Permit: HP3436GW
 Operator: Ionic Metal Treatments Limited
 Activity: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M
 Address: Smethwick Metal Treatment Middlemore Road Smethwick West Midlands B66 2DR
 Sector: Metals, Sub-sector: Surface treatment
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Cadmium	1kg	Below Reporting Threshold
Wastewater	Chromium	20kg	Below Reporting Threshold
Wastewater	Copper	20kg	Below Reporting Threshold
Wastewater	Lead	20kg	Below Reporting Threshold
Wastewater	Mercury	0.1kg	Below Reporting Threshold
Wastewater	Nickel	20kg	Below Reporting Threshold
Wastewater	Zinc	100kg	Below Reporting Threshold

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m

2

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 92**

ID: M, Location: 219m N, Permit: BN1917IW
 Operator: Birmingham Plating Company Ltd
 Activity: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M
 Address: Smethwick Platers 142 to 152 Lewisham Road Smethwick West Midlands B66 2ER
 Sector: Metals, Sub-sector: Surface treatment
 Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D1	Deposit into or onto land (eg landfill, etc.)	5	Absolute Value	20 03 01	mixed municipal waste	0



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12 (eg evaporation, drying, calcination, etc.)	50.68	Absolute Value	11 01 05	pickling acids	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.785	Absolute Value	11 01 98	other wastes containing dangerous substances	1
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	80.94	Absolute Value	11 01 09	sludges and filter cakes containing dangerous substances	1
R1	Use principally as a fuel or other means to generate energy	-	Below Reporting Threshold	15 01 03	wooden packaging	0
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	-	Below Reporting Threshold	15 01 01	paper and cardboard packaging	0
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	-	Below Reporting Threshold	15 01 02	plastic packaging	0
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	-	Below Reporting Threshold	20 01 01	paper and cardboard	0
D4	Surface impoundment (eg placemcent of liquid or sludgy discards into pits, ponds or lagoons, etc.)	-	Below Reporting Threshold	20 01 40	metals	0

ID: V, Location: 400m N, Permit: HP3436GW
 Operator: Ionic Metal Treatments Limited
 Activity: SURFACE TREATING METALS AND PLASTICS; ELECTROLYTIC/CHEMICAL >30 CU M
 Address: Smethwick Metal Treatment Middlemore Road Smethwick West Midlands B66 2DR
 Sector: Metals, Sub-sector: Surface treatment
 Releases:



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D5	Specially engineered landfill (eg placement into lined discrete cells which are capped and isolated from one another and the environment, etc)	87.7	Absolute Value	11 01 09	sludges and filter cakes containing dangerous substances	1
R5	Recycling/reclamation of other inorganic materials	0.5	Absolute Value	15 01 01	paper and cardboard packaging	0
R5	Recycling/reclamation of other inorganic materials	0.8	Absolute Value	15 01 02	plastic packaging	0
D1	Deposit into or onto land (eg landfill, etc.)	1.5	Absolute Value	15 01 09	textile packaging	0
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	1	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	1

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m

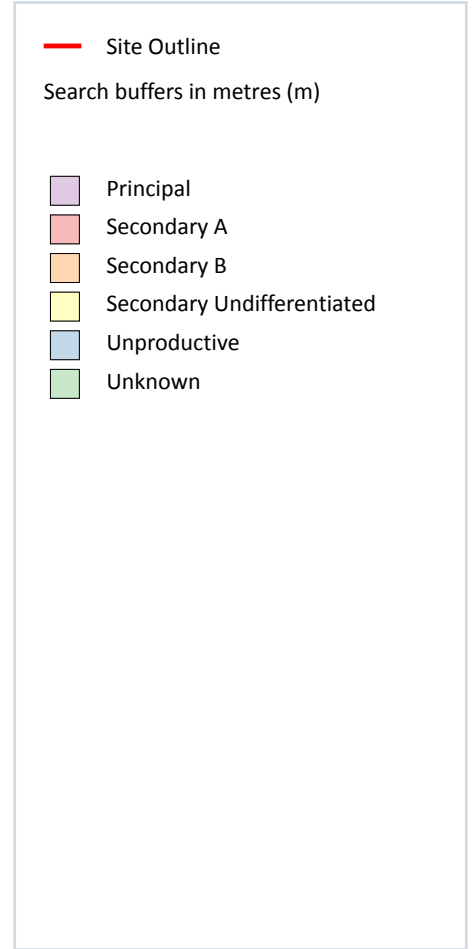
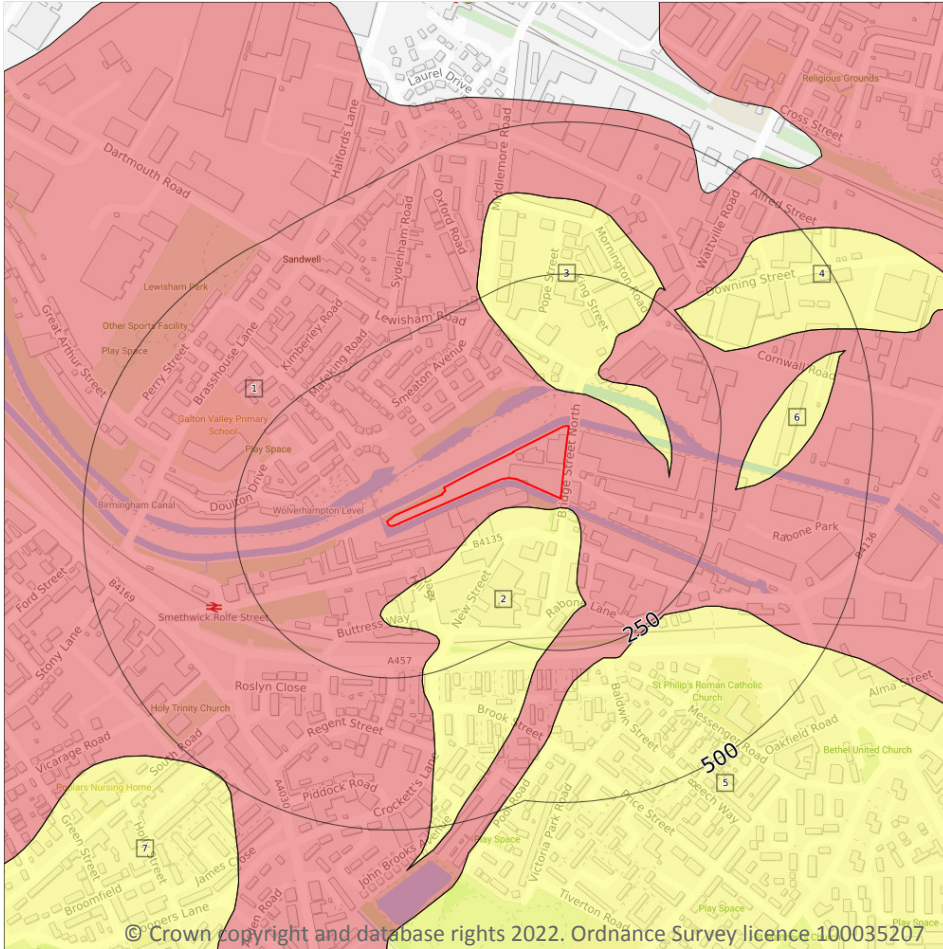
0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m

7

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 117**

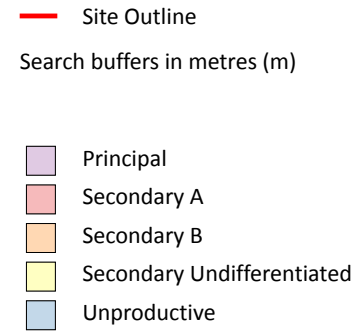
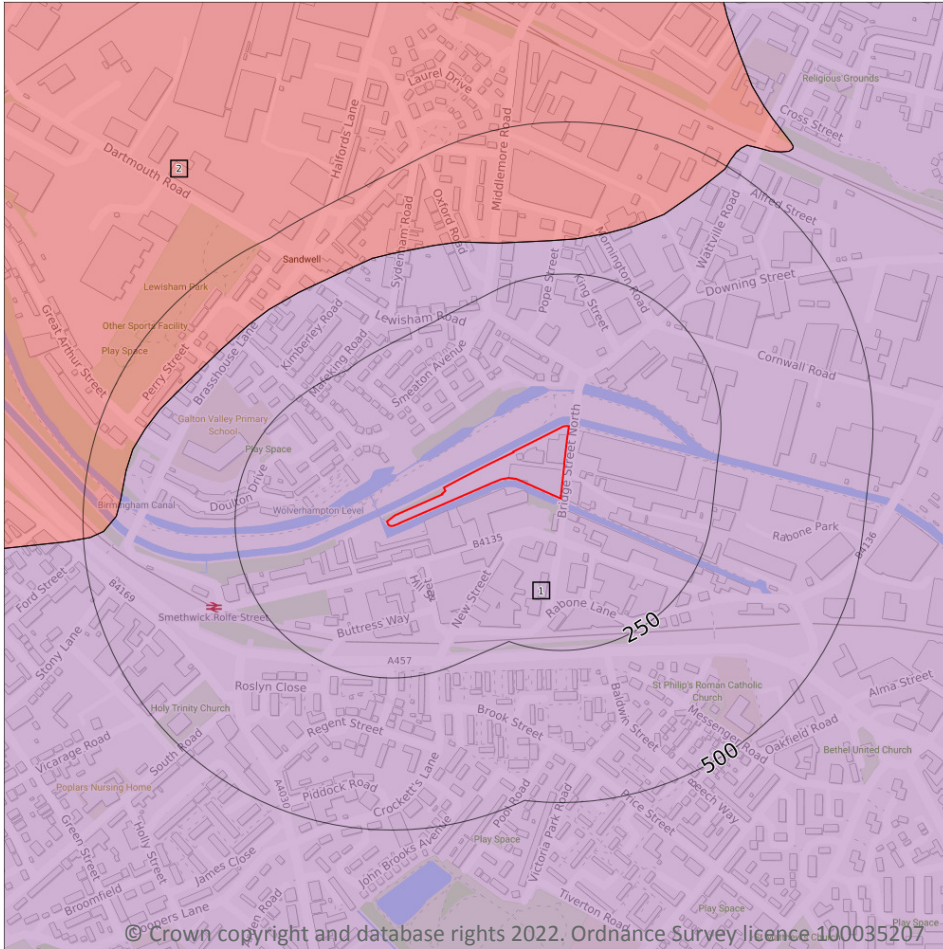
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	15m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

ID	Location	Designation	Description
3	55m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	255m NE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
5	255m SE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
6	284m E	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
7	498m SW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 119**

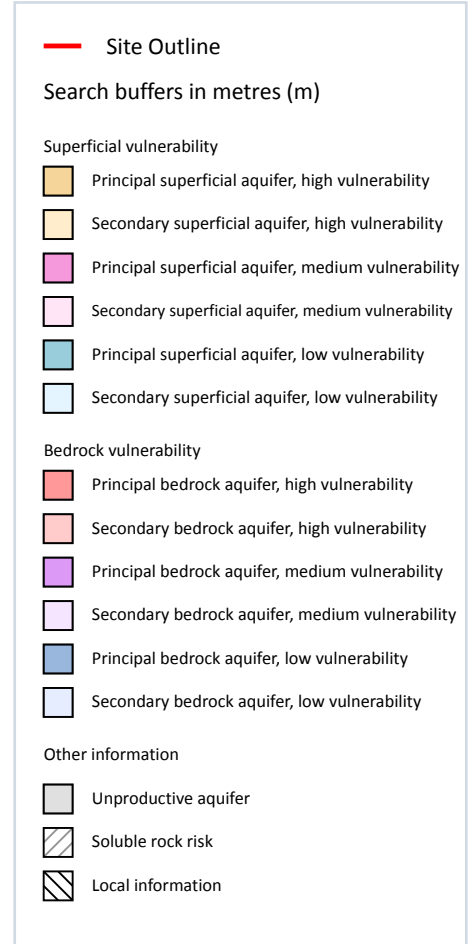
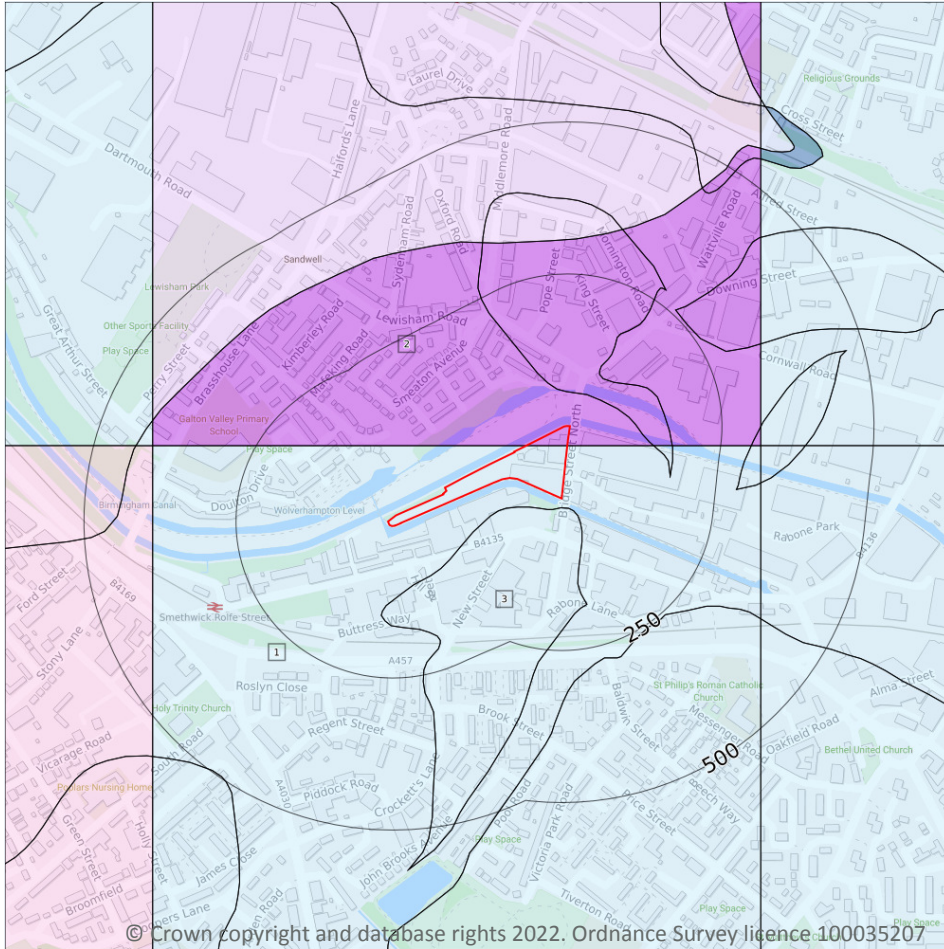
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	306m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

3

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 121**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed
2	On site	Summary Classification: Principal bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Principal Flow mechanism: Well connected fractures
3	15m S	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site

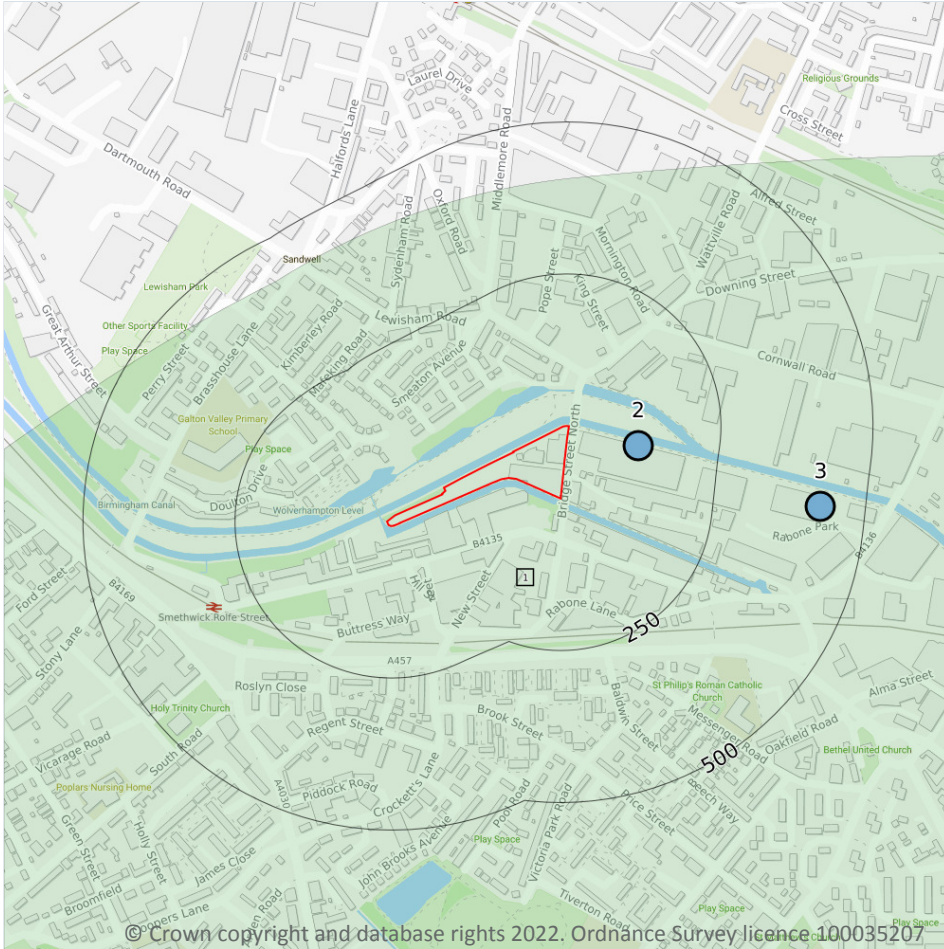
0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.



Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m

25

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 123**

ID	Location	Details	
-	914m E	Status: Historical Licence No: 03/28/08/0114 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: BENSON WORKS, SMETHWICK - BOREHOLE Data Type: Point Name: EDWARD WILLIAMS MANUFACTURING CO LTD Easting: 403600 Northing: 289000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 12/04/1984 Version End Date: -
-	914m E	Status: Historical Licence No: 03/28/08/0114 Details: Process water Direct Source: Groundwater Midlands Region Point: BENSON WORKS, SMETHWICK - BOREHOLE Data Type: Point Name: EDWARD WILLIAMS MANUFACTURING CO LTD Easting: 403600 Northing: 289000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 12/04/1984 Version End Date: -
-	1103m N	Status: Active Licence No: 03/28/08/0088 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Groundwater Midlands Region Point: THE HAWTHORNS,WEST BROMWICH - BOREHOLE Data Type: Point Name: WEST BROMWICH ALBION FC LTD Easting: 402400 Northing: 290100	Annual Volume (m ³): 2,727.60 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 10/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1103m N	Status: Active Licence No: 03/28/08/0088 Details: Spray Irrigation - Direct Direct Source: Groundwater Midlands Region Point: THE HAWTHORNS,WEST BROMWICH - BOREHOLE Data Type: Point Name: WEST BROMWICH ALBION FC LTD Easting: 402400 Northing: 290100	Annual Volume (m ³): 2,727.60 Max Daily Volume (m ³): 45.46 Original Application No: - Original Start Date: 10/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1374m SE	Status: Historical Licence No: 03/28/09/0098 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: ABBERLEY STREET, SMETHWICK - BOREHOLE Data Type: Point Name: B G PLATING LTD Easting: 403700 Northing: 288000	Annual Volume (m ³): 300000 Max Daily Volume (m ³): 1000 Original Application No: - Original Start Date: 13/06/1988 Expiry Date: - Issue No: 100 Version Start Date: 13/06/1988 Version End Date: -



ID	Location	Details	
-	1374m SE	Status: Historical Licence No: 03/28/09/0098 Details: Process Water Direct Source: Groundwater Midlands Region Point: ABBERLEY STREET, SMETHWICK - BOREHOLE Data Type: Point Name: B G PLATING LTD Easting: 403700 Northing: 288000	Annual Volume (m ³): 300000 Max Daily Volume (m ³): 1000 Original Application No: - Original Start Date: 13/06/1988 Expiry Date: - Issue No: 100 Version Start Date: 13/06/1988 Version End Date: -
-	1414m SE	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: BASS BREWERY,BIRMINGHAM - B'HOLE 1 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403400 Northing: 287700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -
-	1414m SE	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: BASS BREWERY,BIRMINGHAM - B'HOLE 1 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403400 Northing: 287700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -
-	1414m SE	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY,BIRMINGHAM - B'HOLE 1 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403400 Northing: 287700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -
-	1414m SE	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY,BIRMINGHAM - B'HOLE 1 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403400 Northing: 287700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -



ID	Location	Details	
-	1571m NW	Status: Historical Licence No: 03/28/08/0115 Details: Spray Irrigation - Direct Direct Source: Groundwater Midlands Region Point: SANDWELL PARK GOLF COURSE - BOREHOLE Data Type: Point Name: SANDWELL PARK GOLF CLUB Easting: 401900 Northing: 290400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 16/12/1965 Version End Date: -
-	1593m SW	Status: Historical Licence No: MD/028/0008/016 Details: Dewatering Direct Source: Groundwater Midlands Region Point: BOREHOLES AT SANDWELL AQUATIC CENTRE, SMETHWICK Data Type: Poly4 Name: SANDWELL METROPOLITAN BOROUGH COUNCIL Easting: 400762 Northing: 288206	Annual Volume (m ³): 946080 Max Daily Volume (m ³): 2592 Original Application No: - Original Start Date: 07/06/2019 Expiry Date: 31/01/2022 Issue No: 1 Version Start Date: 07/06/2019 Version End Date: -
-	1593m SW	Status: Historical Licence No: MD/028/0008/016 Details: Dewatering Direct Source: Groundwater Midlands Region Point: BOREHOLES AT SANDWELL AQUATIC CENTRE, SMETHWICK Data Type: Poly4 Name: SANDWELL METROPOLITAN BOROUGH COUNCIL Easting: 400762 Northing: 288206	Annual Volume (m ³): 946,080 Max Daily Volume (m ³): 2,592 Original Application No: - Original Start Date: 07/06/2019 Expiry Date: 31/01/2022 Issue No: 1 Version Start Date: 07/06/2019 Version End Date: -
-	1724m SE	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: BASS BREWERIES, B'HAM, B'HOLE 2 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403500 Northing: 287400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -



ID	Location	Details	
-	1724m SE	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: BASS BREWERIES, B'HAM, B'HOLE 2 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403500 Northing: 287400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -
-	1724m SE	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY, B'HAM, B'HOLE 2 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403500 Northing: 287400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -
-	1724m SE	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY, B'HAM, B'HOLE 2 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403500 Northing: 287400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -
-	1730m S	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: BASS BREWERIES B'HAM, B'HOLES 3 & 4 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403300 Northing: 287300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -
-	1730m S	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: BASS BREWERIES B'HAM, B'HOLES 3 & 4 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403300 Northing: 287300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -



ID	Location	Details	
-	1730m S	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY B'HAM, B'HOLES 3 & 4 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403300 Northing: 287300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -
-	1730m S	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY B'HAM, B'HOLES 3 & 4 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403300 Northing: 287300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -
-	1918m S	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: BASS BREWERIES, B'HAM, B'HOLES 5 & 6 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403300 Northing: 287100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -
-	1918m S	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: BASS BREWERIES, B'HAM, B'HOLES 5 & 6 Data Type: Point Name: BASS BREWERS LIMITED Easting: 403300 Northing: 287100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/06/1994 Version End Date: -
-	1918m S	Status: Historical Licence No: 03/28/09/0024 Details: Non-Evaporative Cooling Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY, B'HAM, B'HOLES 5 & 6 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403300 Northing: 287100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -



ID	Location	Details	
-	1918m S	Status: Historical Licence No: 03/28/09/0024 Details: Process water Direct Source: Groundwater Midlands Region Point: CAPE HILL BREWERY, B'HAM, B'HOLES 5 & 6 Data Type: Point Name: COORS BREWERS LIMITED Easting: 403300 Northing: 287100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 26/04/2002 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	3
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Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 123**

ID	Location	Details	
2	117m E	Status: Historical Licence No: 03/28/08/0001 Details: Non-Evaporative Cooling Direct Source: Surface Water Midlands Region Point: WELLMANS - BIRMINGHAM CANAL Data Type: Point Name: BRITISH WATERWAYS BOARD Easting: 402800 Northing: 289000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/10/1965 Expiry Date: - Issue No: 100 Version Start Date: 05/10/1965 Version End Date: -
3	426m E	Status: Historical Licence No: 03/28/08/0011 Details: Non-Evaporative Cooling Direct Source: Surface Water Midlands Region Point: IMI YORKSHIRE IMPERIAL LTD - BIRMINGHAM CANAL Data Type: Point Name: BRITISH WATERWAYS BOARD Easting: 403100 Northing: 288900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/10/1965 Expiry Date: - Issue No: 100 Version Start Date: 29/02/1980 Version End Date: -



ID	Location	Details	
-	1857m W	Status: Historical Licence No: 03/28/08/0259 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: SANDWELL MBC - WEST SMETHWICK PARK POOL Data Type: Point Name: SANDWELL METROPOLITAN B C Easting: 400530 Northing: 288820	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/06/1995 Expiry Date: - Issue No: 100 Version Start Date: 20/06/1995 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	0
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Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	1
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 123**

ID	Location	Type	Description
1	On site	3	Total catchment

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

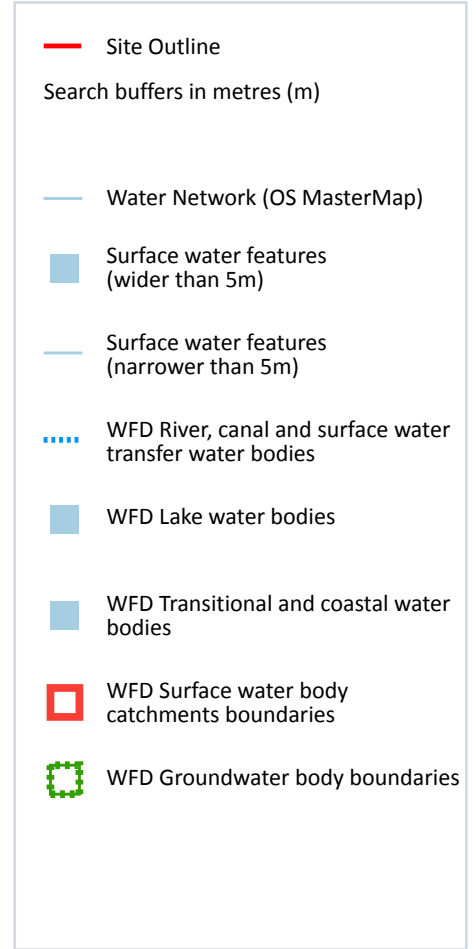
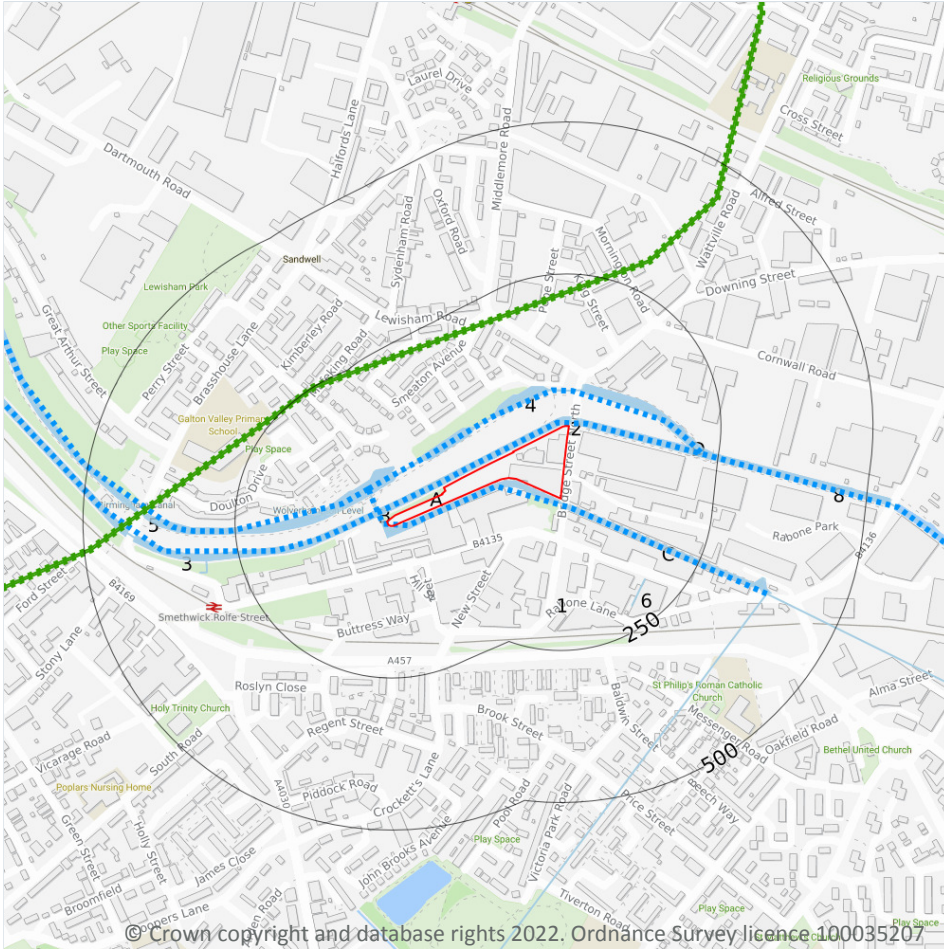
Records within 500m	0
----------------------------	----------

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m	16
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Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 131**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	6m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal



ID	Location	Type of water feature	Ground level	Permanence	Name
A	6m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
B	6m SW	Inland river not influenced by normal tidal action.	Suspended or elevated	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
C	6m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
A	7m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
A	7m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
2	8m N	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
A	10m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
A	13m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
3	15m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
4	57m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
5	61m NW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
6	191m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	197m E	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal



ID	Location	Type of water feature	Ground level	Permanence	Name
D	199m E	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal
8	216m E	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Birmingham Canal

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

3

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 131**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 131**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Hockley Brook Catchment (trib of Rea)	GB104028042640	Tame Lower Rivers and Lakes	Tame Anker and Mease

This data is sourced from the Environment Agency and Natural Resources Wales.



6.4 WFD Surface water bodies

Records identified
3

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 131**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
A	On site	Canal	Birmingham to Wolverhampton Canal, Wolverhampton Level	GB70410516	Moderate	Fail	Moderate	2019
A	5m N	Canal	Birmingham to Wolverhampton Canal, Birmingham Level	GB70410512	Moderate	Fail	Good	2019
-	718m E	River	Hockley Brook Catchment (trib of Rea)	GB104028042640	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site
1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

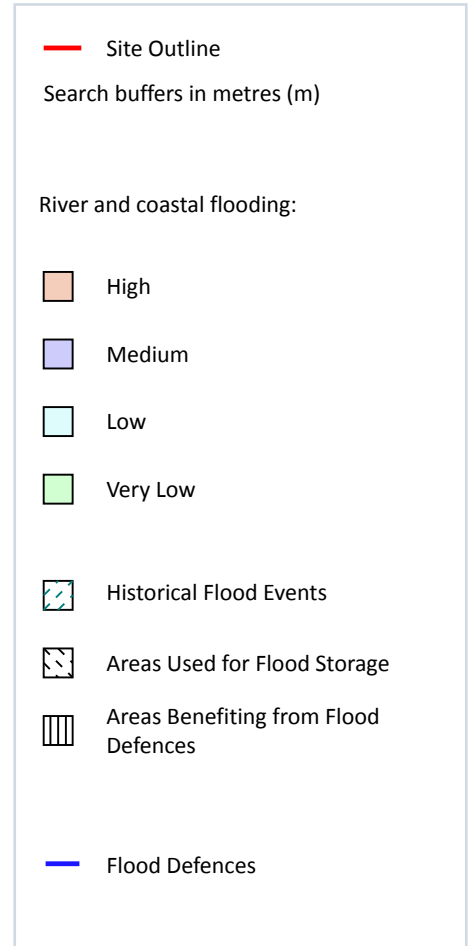
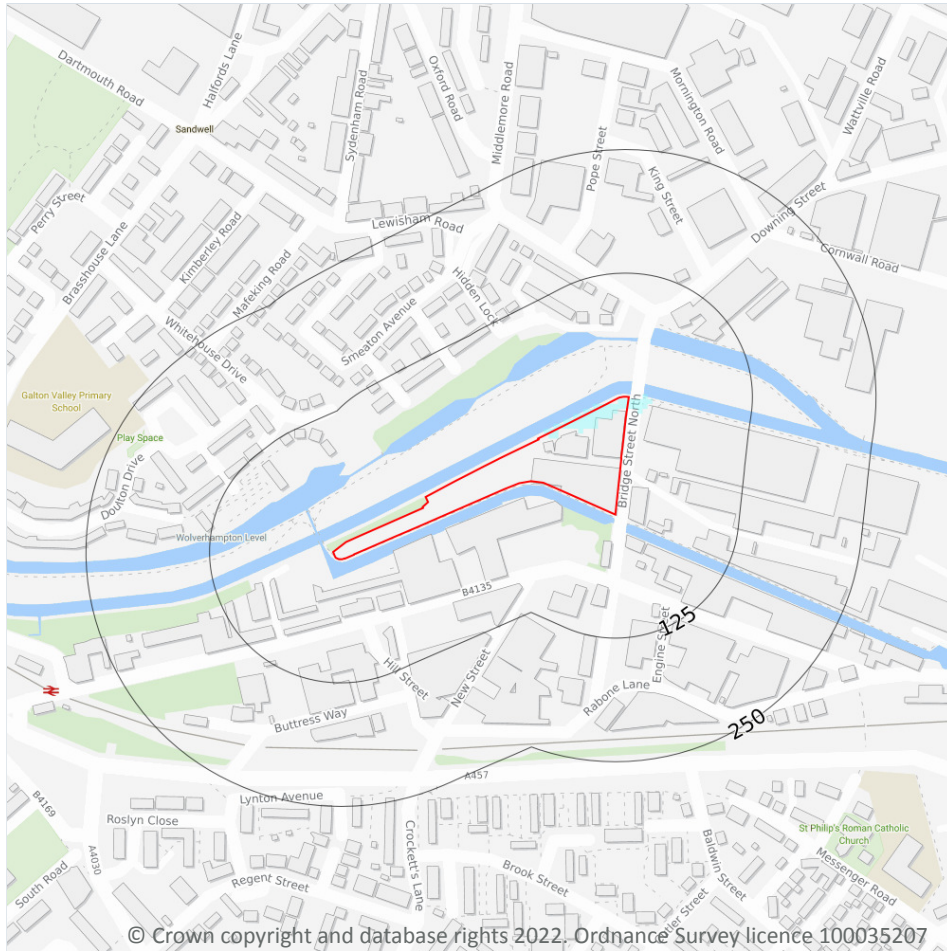
Features are displayed on the Hydrology map on **page 131**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	On site	Tame Anker Mease - PT Sandstone Birmingham Lichfield	GB40401G301000	Poor	Poor	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding



7.1 Risk of flooding from rivers and the sea

Records within 50m

1

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on **page 135**

Distance	Flood risk category
On site	Low
0 - 50m	Low

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m **0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m **0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m **0**

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

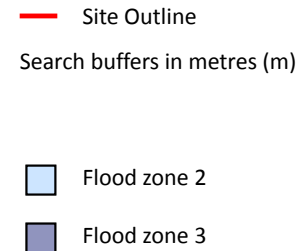
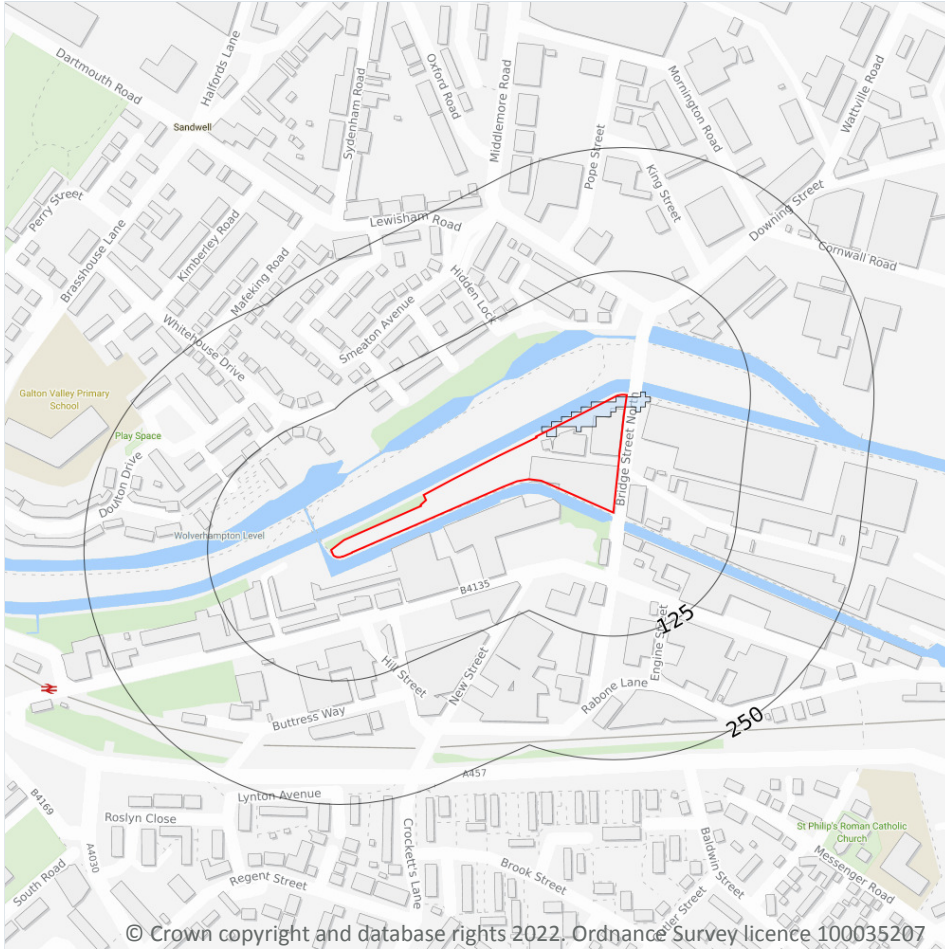
Records within 250m **0**

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones



7.6 Flood Zone 2

Records within 50m

1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on **page 135**

Location	Type
On site	Zone 2 - (Fluvial /Tidal Models)

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

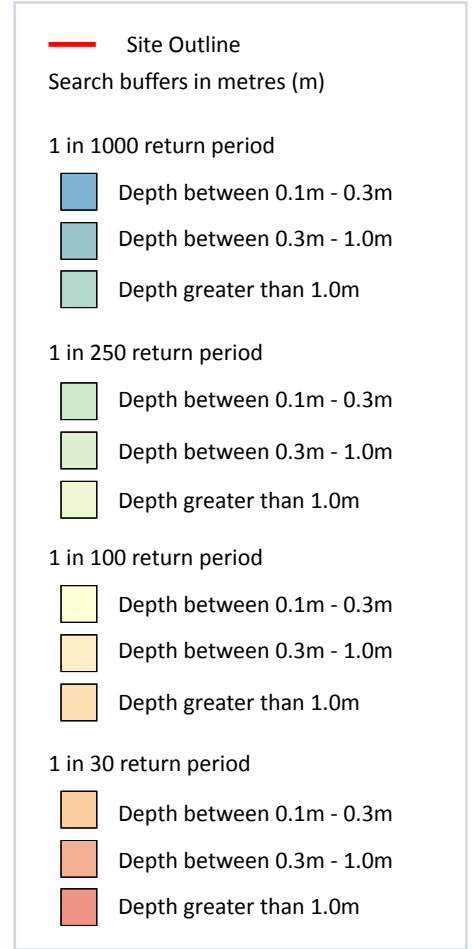
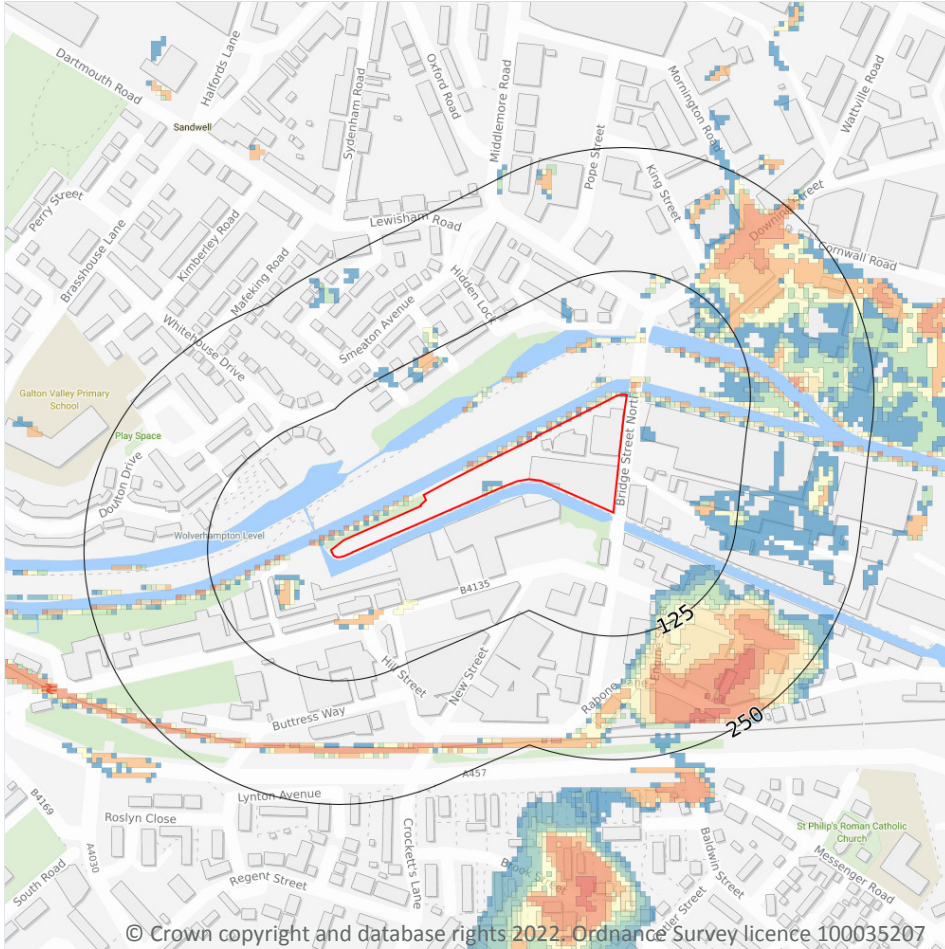
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 100 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 139**

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

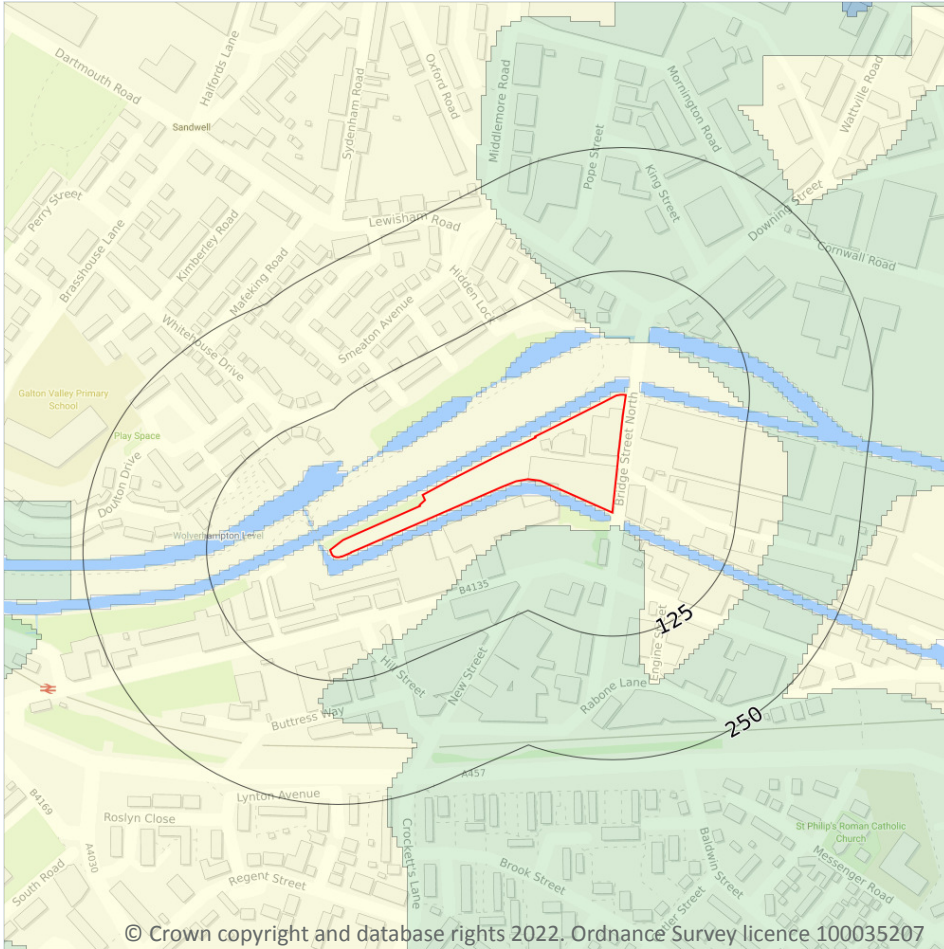
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

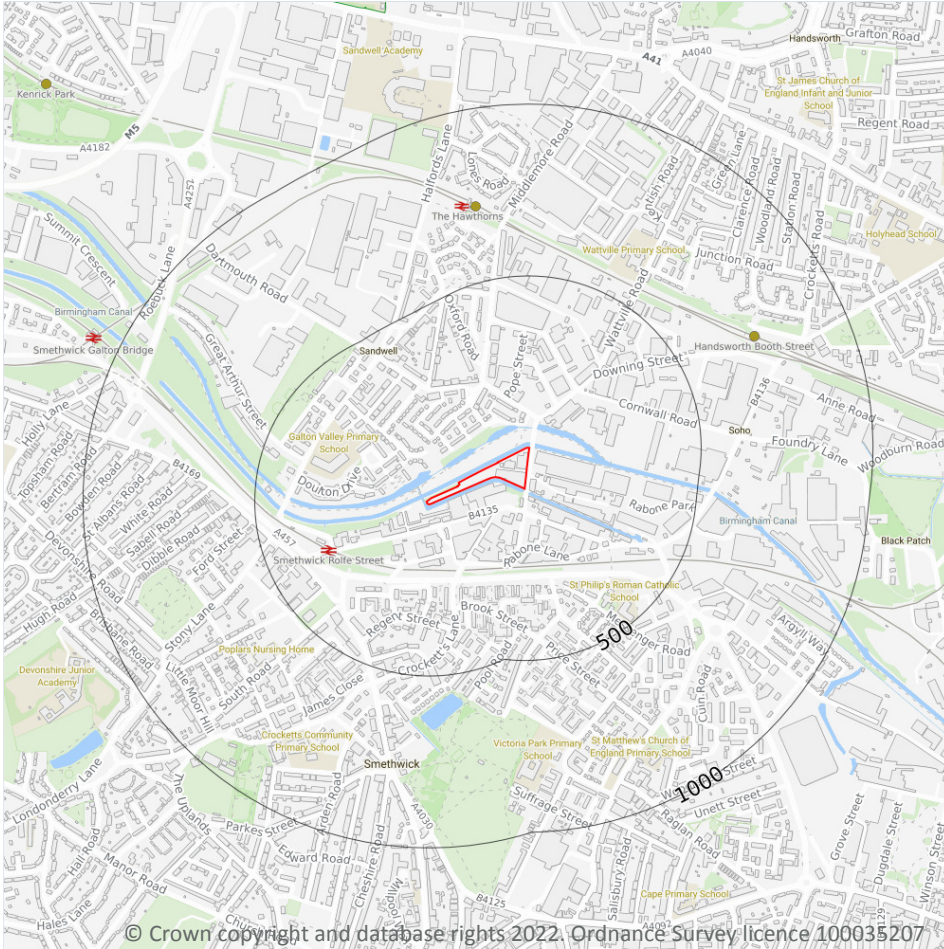
Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 141**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.



10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

2

Areas designated to prevent urban sprawl by keeping land permanently open.

Features are displayed on the Environmental designations map on **page 142**

ID	Location	Name	Local Authority name
1	1332m N	Birmingham	Sandwell
-	1333m N	Birmingham	Birmingham

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

2

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	River Trent (source to confluence with Derwent)	Surface Water	308	Existing
1406m E	River Trent (source to confluence with Derwent)	Surface Water	308	Existing

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site

0

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

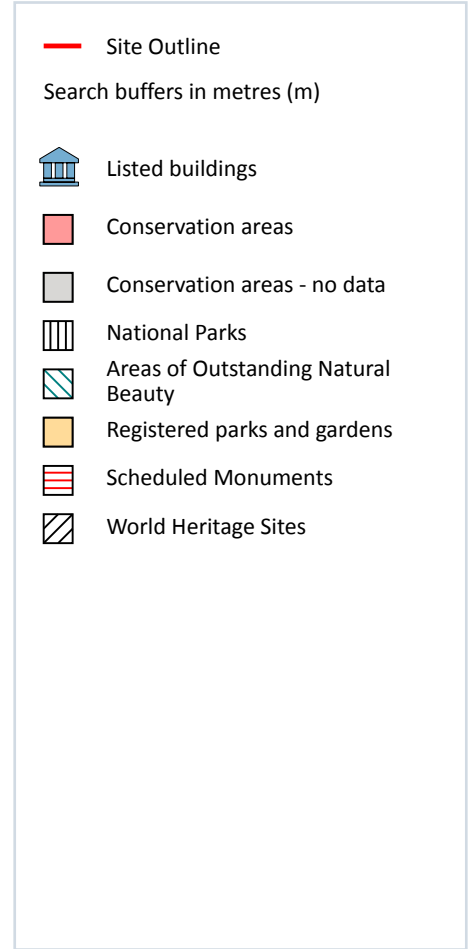
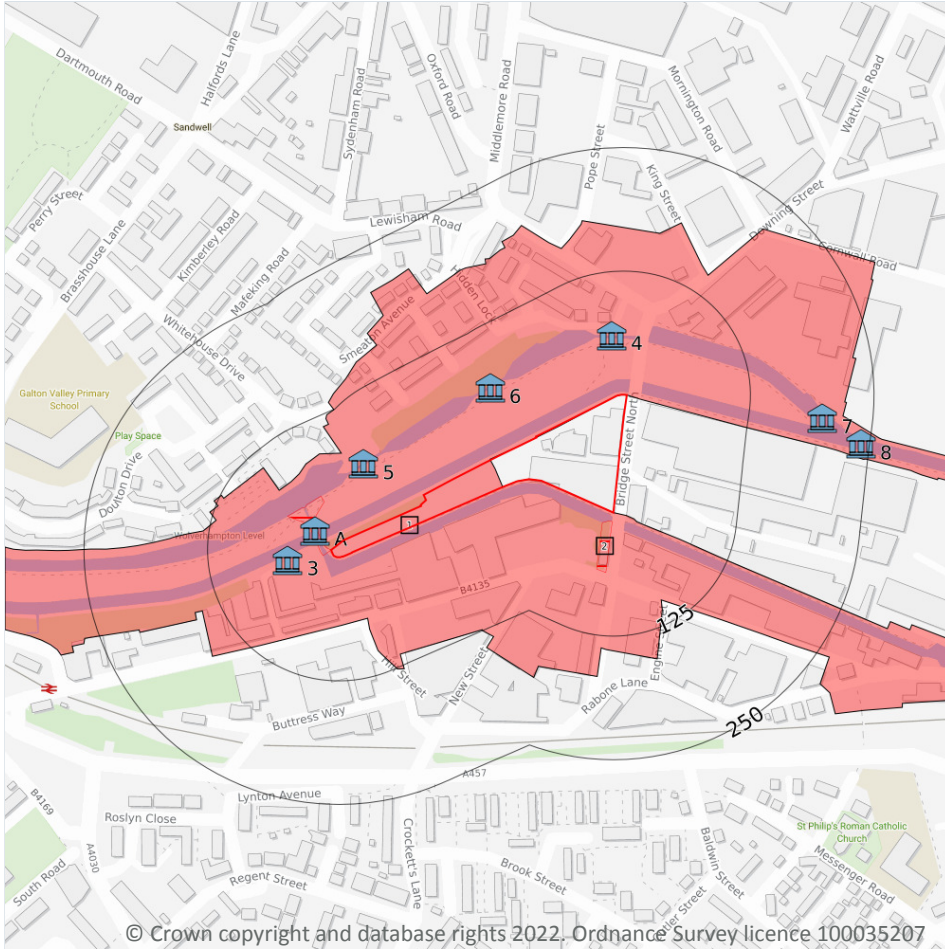
0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations



11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

7

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 148**

ID	Location	Name	Grade	Reference Number	Listed date
A	25m NW	Engine Arm Aqueduct, Birmingham Canal Wolverhampton Level, St. Pauls, Sandwell, B66	II*	1391874	08/02/2007
3	45m W	Retaining Wall To Former Corporation Yard, Soho and Victoria, Sandwell, B66	II	1391126	11/06/2004
4	61m N	Bottom Lock of Three, Smethwick Locks Immediately West of Bridge Street Birmingham Canal Woverhampton Level, St. Pauls, Sandwell, B66	II	1077129	30/03/1987



ID	Location	Name	Grade	Reference Number	Listed date
5	62m NW	Top Lock of Three, Smethwick Locks, With Attached Footbridge (Approximately 270 Metres West, South West of Bridge Street Birmingham Canal Wolverhampton Level, St. Pauls, Sandwell, B66	II	1077162	30/03/1987
6	66m NW	Middle Lock of Three, Smethwick Locks (Approximately 140 Metres West of Bridge Street) Birmingham Canal Wolverhampton Level, St. Pauls, Sandwell, B66	II	1215330	30/03/1987
7	199m E	Footbridge At Junction With Birmingham Canal, Smethwick Junction (Approximately 190 Metres East of Bridge Street) Birmingham Level Wolverhampton Level, Soho and Victoria, Sandwell, B66	II	1342672	30/03/1987
8	242m E	Footbridge At Junction With Wolverhampton Level (Approximately 230 Metres East of Bridge Street) Birmingham Canal Birmingham Level, Soho and Victoria, Sandwell, B66	II	1214908	30/03/1987

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

1

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

Features are displayed on the Visual and cultural designations map on **page 148**

ID	Location	Name	District	Date of designation
1	On site	Smethwick Summit Galton Valley	Sandwell	1984

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

2

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.



Features are displayed on the Visual and cultural designations map on **page 148**

ID	Location	Ancient monument name	Reference number
A	On site	Engine Arm Aqueduct, Warley	1005904
2	9m S	Smethwick Engine House	1005887

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

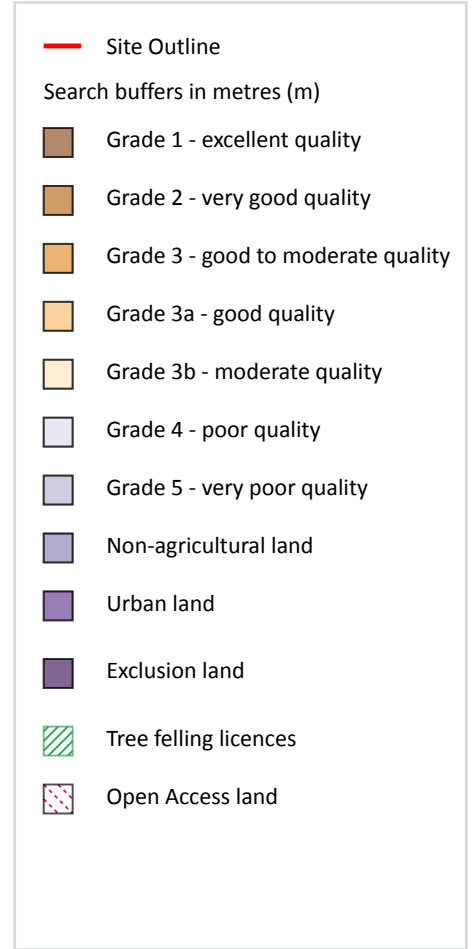
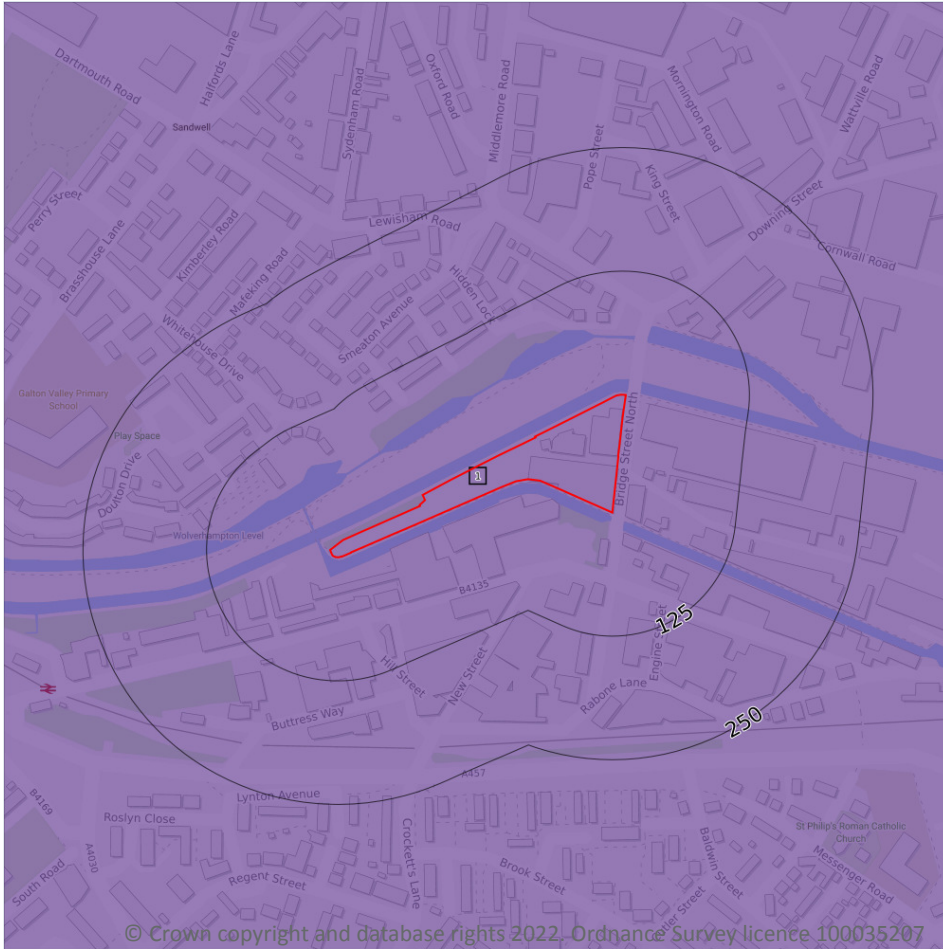
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m

1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 152**

ID	Location	Classification	Description
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1	On site	Urban	-
---	---------	-------	---

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

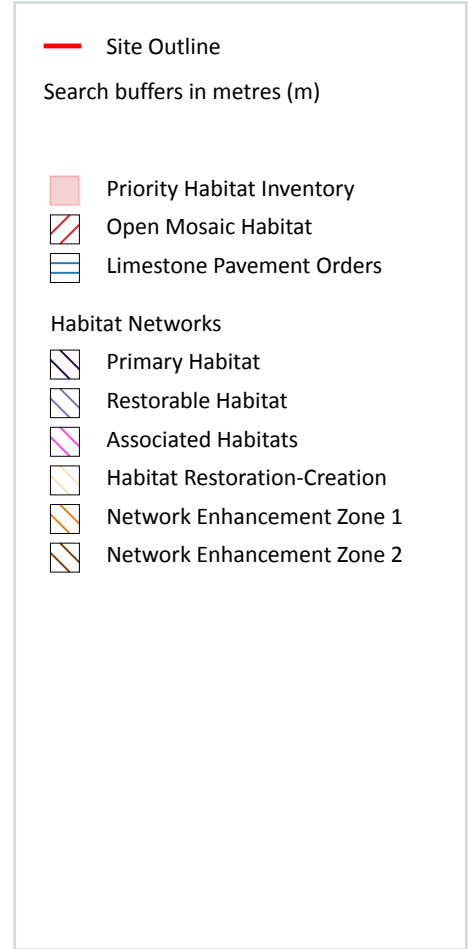
0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.



13 Habitat designations



13.1 Priority Habitat Inventory

Records within 250m

1

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on **page 154**

ID	Location	Main Habitat	Other habitats
1	146m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
 Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

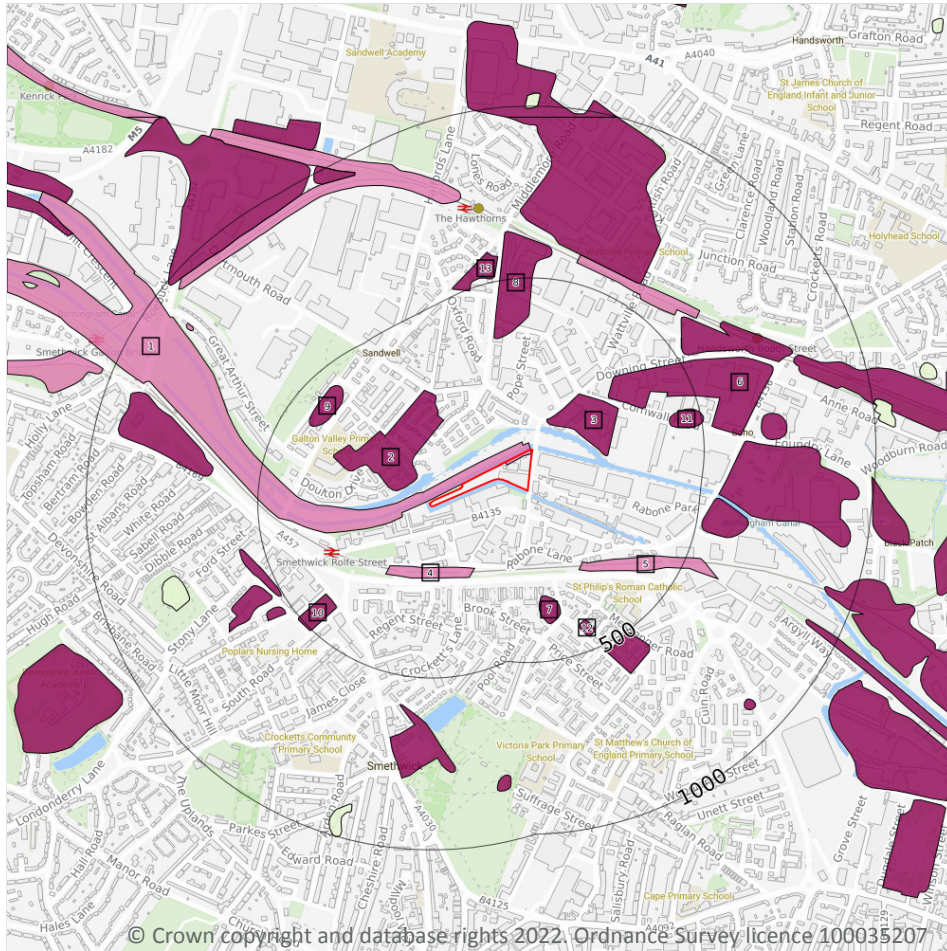
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 156](#)

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SP08NW

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



- Site Outline
- Search buffers in metres (m)
- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

13

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 157**

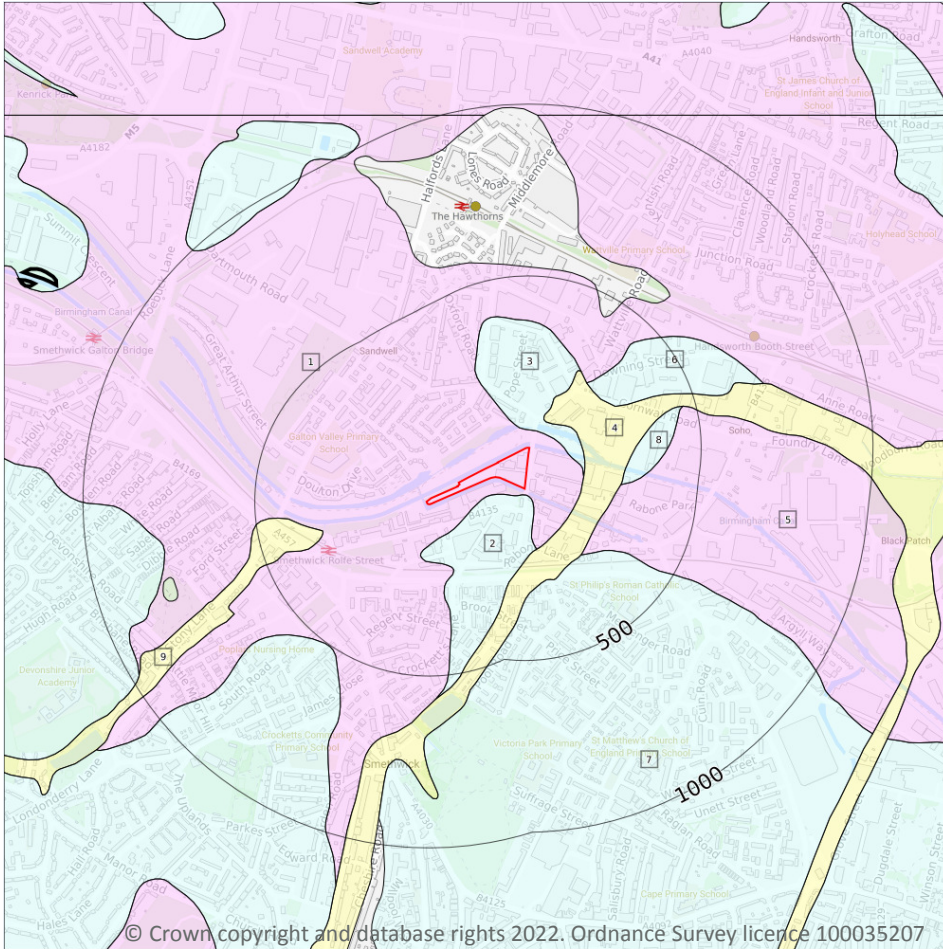
ID	Location	LEX Code	Description	Rock description
1	On site	WGR-VOID	Worked Ground (Undivided)	Void
2	79m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	90m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	179m S	WGR-VOID	Worked Ground (Undivided)	Void


ID	Location	LEX Code	Description	Rock description
5	262m SE	WGR-VOID	Worked Ground (Undivided)	Void
6	269m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	308m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	336m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
9	383m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
10	397m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
11	407m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
12	411m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
13	494m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
-  Landslip (10k)
- Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

9

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 159**

ID	Location	LEX Code	Description	Rock description
1	On site	GFDU-XSV	Glaciofluvial Deposits - Sand And Gravel	Sand And Gravel
2	19m S	TILL-DMTN	Till - Diamicton	Diamicton
3	52m N	TILL-DMTN	Till - Diamicton	Diamicton
4	90m NE	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt



ID	Location	LEX Code	Description	Rock description
5	234m SE	GFDU-XSV	Glaciofluvial Deposits - Sand And Gravel	Sand And Gravel
6	248m NE	TILL-DMTN	Till - Diamicton	Diamicton
7	253m SE	TILL-DMTN	Till - Diamicton	Diamicton
8	277m E	TILL-DMTN	Till - Diamicton	Diamicton
9	315m W	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

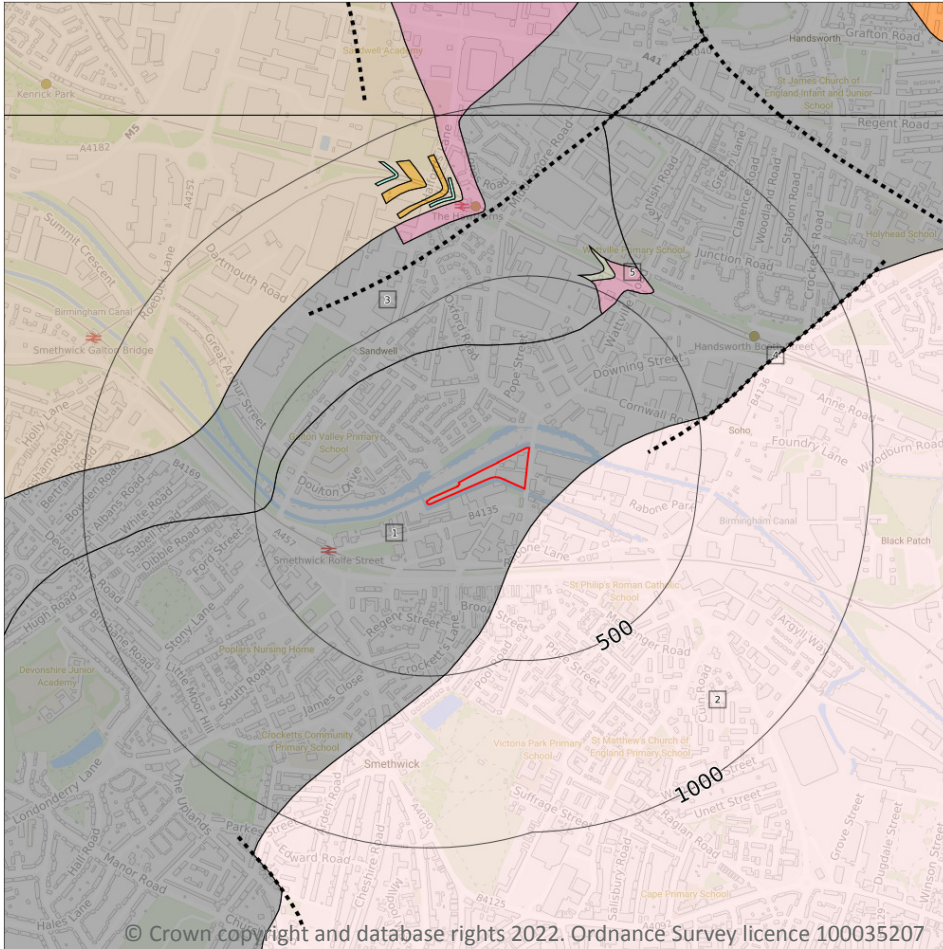
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (10k)
- Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

4

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 161**

ID	Location	LEX Code	Description	Rock age
1	On site	KDM-PESST	Kidderminster Formation - Pebbly (gravelly) Sandstone	Early Triassic Epoch
2	83m SE	WRS-SDST	Wildmoor Sandstone Formation - Sandstone	Early Triassic Epoch
3	304m N	EN-ARSC	Enville Member - Interbedded Argillaceous Rocks And [subordinate/subequal] Sandstone And Conglomerate	Cisuralian Epoch - Westphalian D Sub-age



ID	Location	LEX Code	Description	Rock age
5	443m NE	EN-SDST	Enville Member - Sandstone	Cisuralian Epoch - Westphalian D Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	1
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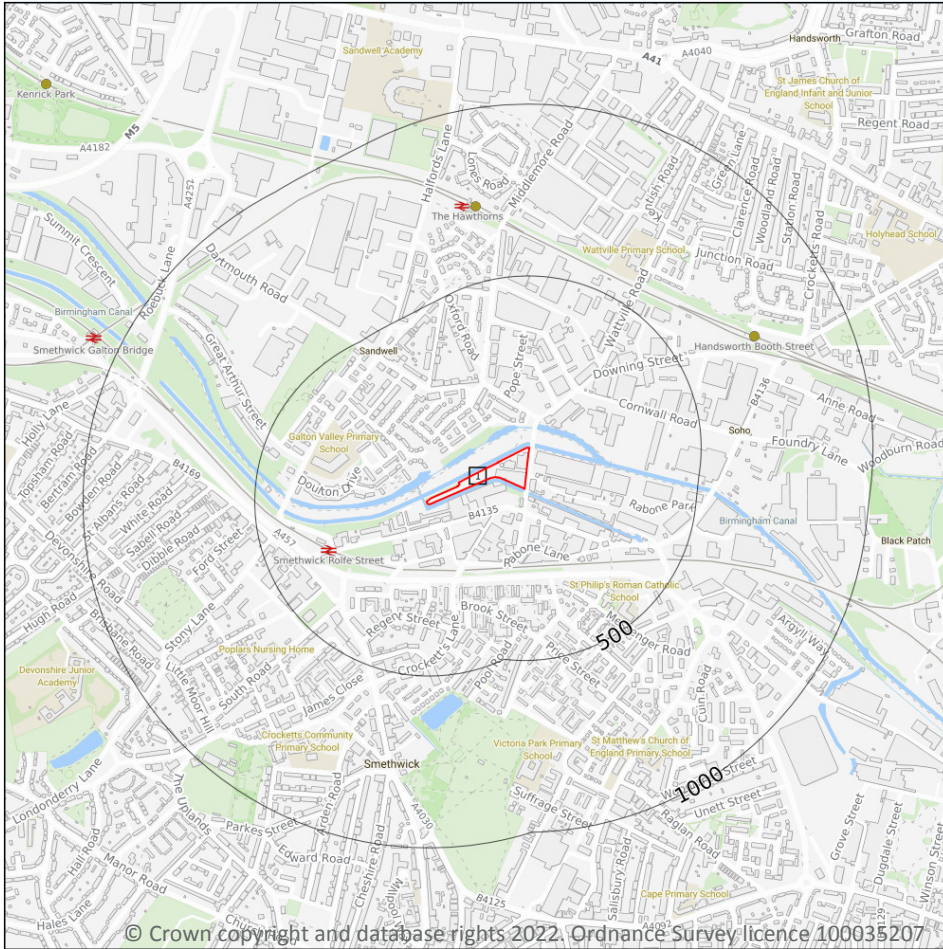
Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 161**

ID	Location	Category	Description
4	346m E	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



— Site Outline
 Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 163**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW168_birmingham_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

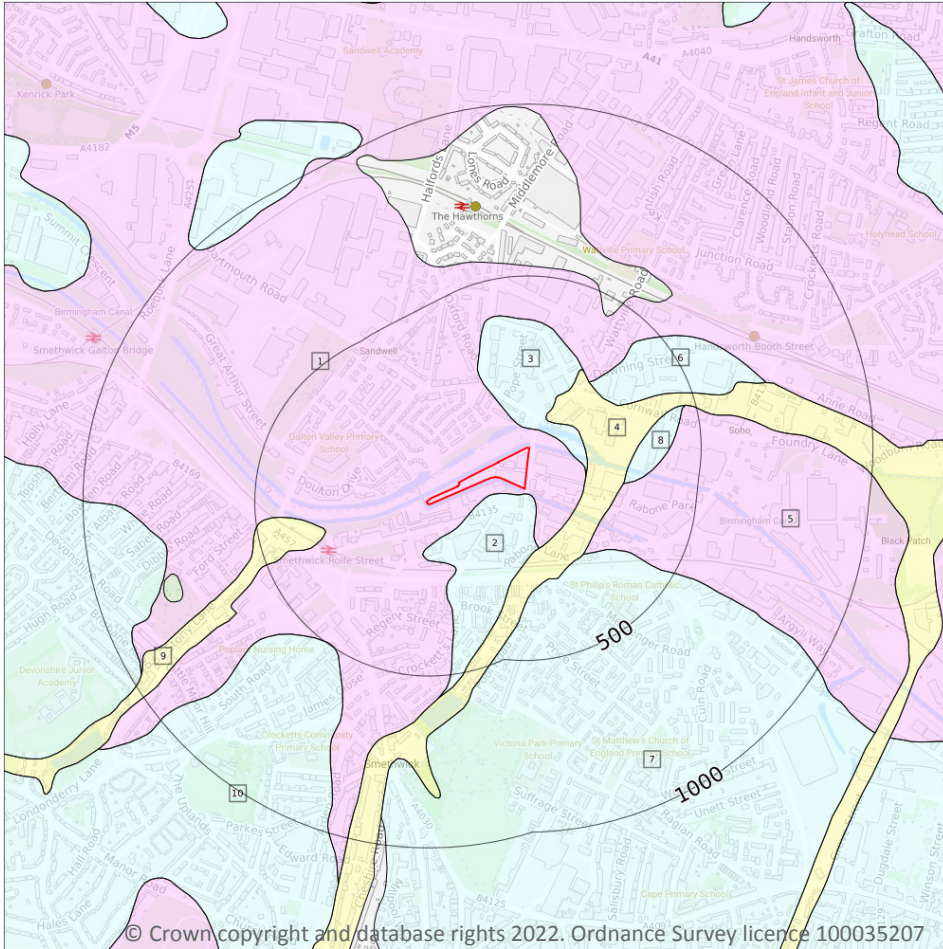
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

10

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 165**

ID	Location	LEX Code	Description	Rock description
1	On site	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	15m S	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON
3	55m N	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON



ID	Location	LEX Code	Description	Rock description
4	95m NE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
5	239m SE	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
6	255m NE	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON
7	255m SE	TILLD-XDSV	TILL, DEVENSIAN	DIAMICTON, SAND AND GRAVEL
8	284m E	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON
9	307m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
10	498m SW	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	Very High	High
15m S	Mixed	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



15.7 Landslip permeability (50k)

Records within 50m

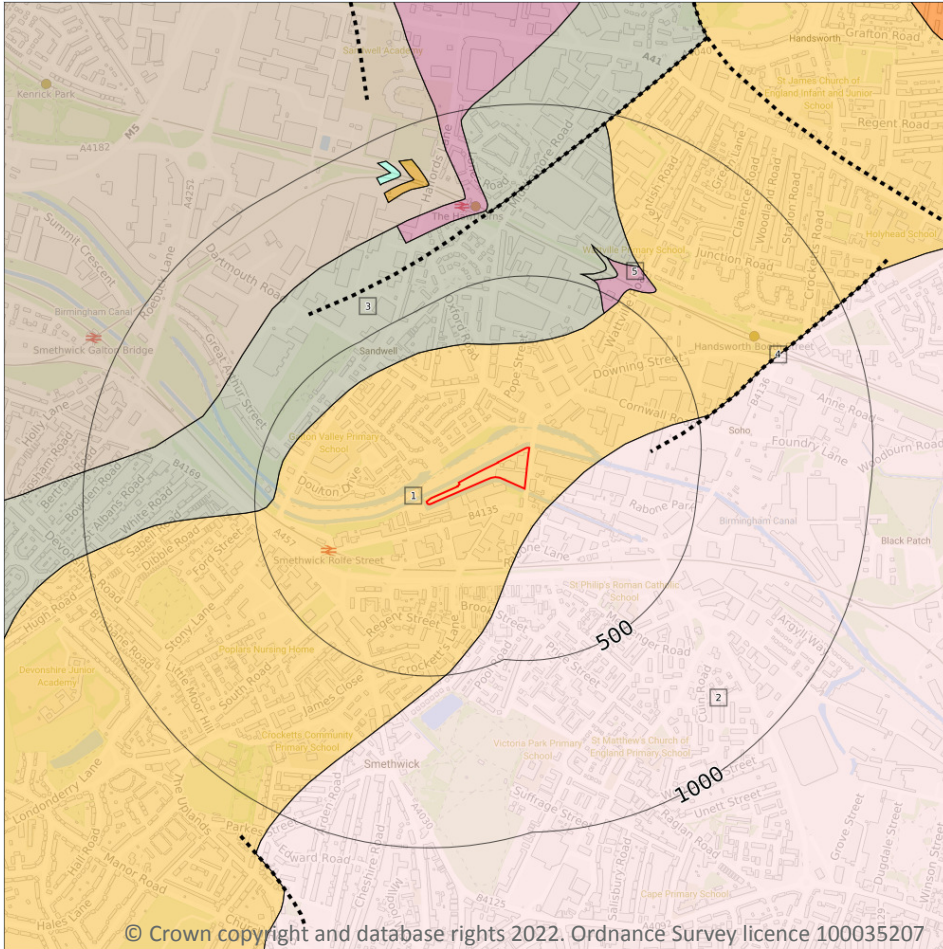
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (50k)
- Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

4

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 168**

ID	Location	LEX Code	Description	Rock age
1	On site	CHES-SCON	CHESTER FORMATION - SANDSTONE AND CONGLOMERATE, INTERBEDDED	OLENEKIAN
2	86m SE	WRS-SDST	WILDMOOR SANDSTONE MEMBER - SANDSTONE	-
3	306m N	EN-SCSM	ENVILLE MEMBER - SANDSTONE WITH SUBORDINATE CONGLOMERATE, SILTSTONE AND MUDSTONE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
5	448m NE	EN-SDST	ENVILLE MEMBER - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

1

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

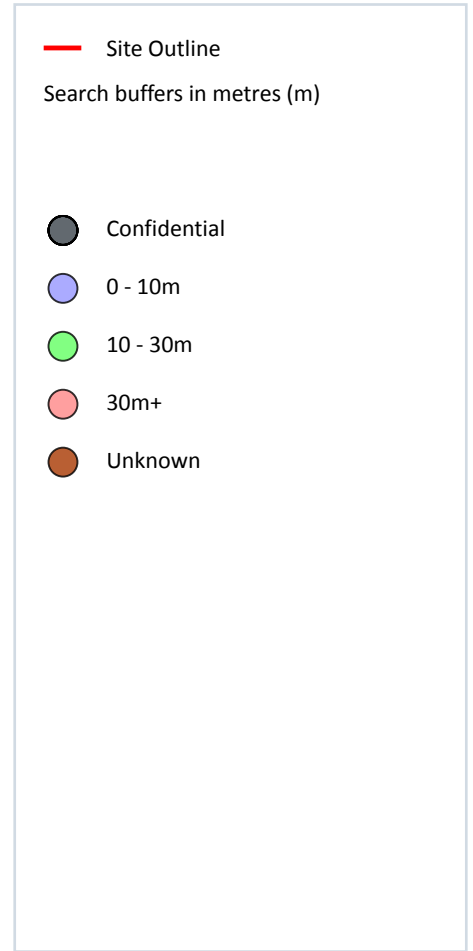
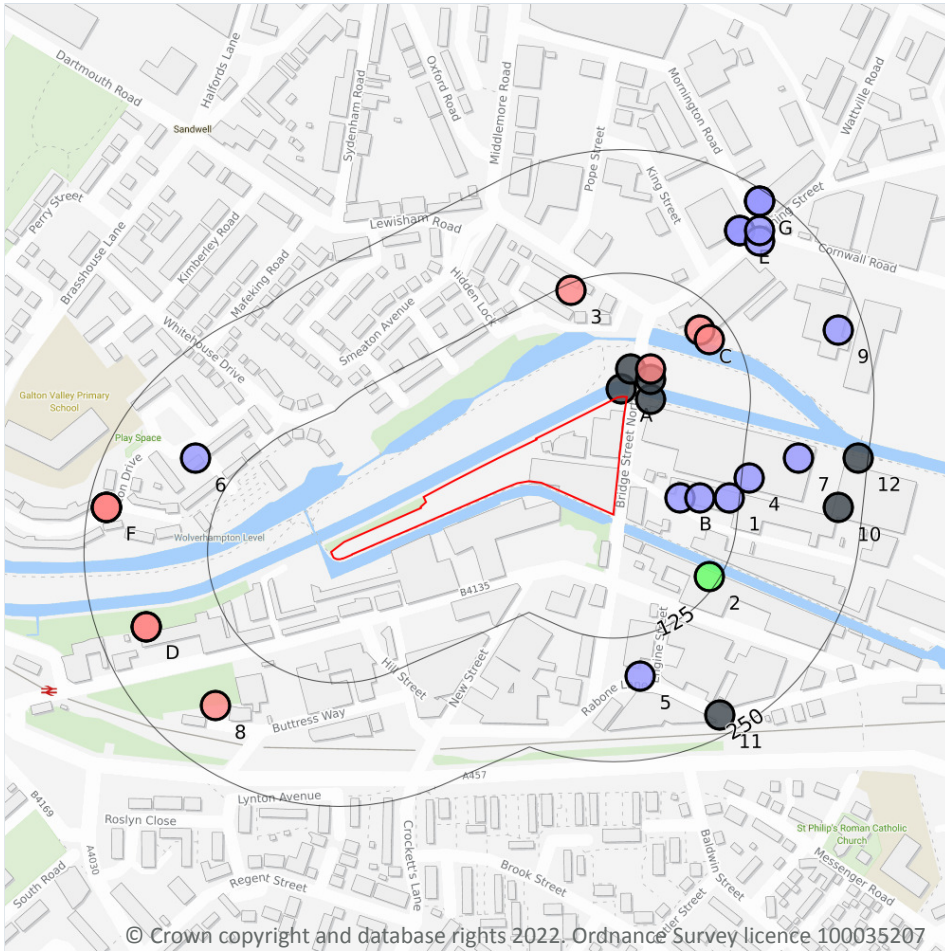
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 168**

ID	Location	Category	Description
4	353m E	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



16.1 BGS Boreholes

Records within 250m

32

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 170**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	8m N	402680 289040	ROLFE BRIDGE 4	-	Y	N/A
A	24m E	402710 289030	ROLFE BRIDGE 3	-	Y	N/A
A	28m N	402690 289060	ROLFE BRIDGE 1	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	30m NE	402710 289050	ROLFE BRIDGE 2	-	Y	N/A
A	37m NE	402710 289060	SMETHWICK BIRMINGHAM	91.44	N	304203
B	65m E	402740 288930	T A PHILLIPS SWETHWICK	2.0	N	304141
B	85m E	402760 288930	T A PHILLIPS SWETHWICK	7.0	N	304142
C	100m NE	402760 289100	SMETHWICK POWER STATION DOWNING STREET	91.74	N	305124
C	102m NE	402770 289090	SMETHWICK POWER STATION DOWNING STREET	106.68	N	305123
1	115m E	402790 288930	T A PHILLIPS SWETHWICK	8.23	N	304143
2	116m SE	402770 288850	THIMBLEMILL CULVERT BH7	10.66	N	304728
3	118m NW	402630 289140	R BERRY & SONS MAFEKING ROAD SMETHWICK	89.3	N	304210
4	133m E	402810 288950	THIMBLEMILL CULVERT BH8	6.09	N	304729
5	166m S	402700 288750	THIMBLEMILL CULVERT BH6	7.62	N	304727
6	167m NW	402250 288970	MAFEKING ROAD SMETHWICK 1	7.0	N	304562
7	180m E	402860 288970	THIMBLEMILL CULVERT BH9	6.09	N	304730
8	192m SW	402270 288720	ROLFE STREET BATHS SMETHWICK	121.92	N	304209
D	202m W	402200 288800	BRASSHOUSE LANE SMETHWICK	98.32	N	304246
D	202m W	402200 288800	DISTRICT IRON & STEEL SMETHWICK	98.16	N	305120
E	203m NE	402800 289200	MORNINGTON ROAD WARLEY	6.58	N	304226
E	203m NE	402800 289200	MORNINGTON ROAD SMETHWICK	8.1	N	304224
E	207m NE	402820 289190	THIMBLEMILL CULVERT BH10	4.57	N	304731
E	215m NE	402820 289200	MORNINGTON ROAD SMETHWICK	1.82	N	304225
9	224m E	402900 289100	CORNWALL ROAD SMETHWICK	7.62	N	304227
10	226m E	402900 288920	RABONE LANE SMETHWICK 3	-	Y	N/A
11	230m SE	402780 288710	HOCKLEY U.I.D. 5	-	Y	N/A
F	231m W	402160 288920	DISTRICT IRON & STEEL CO.SMETHWICK	95.4	N	305101
F	231m W	402160 288920	DISTRICT IRON & STEEL CO.SMETHWICK	95.4	N	305102
F	231m W	402160 288920	IRON & STEEL WORKS SMETHWICK	95.4	N	304202
G	239m NE	402820 289230	MORNINGTON ROAD/DOWNING STREET TP 2	1.4	N	304567
G	239m NE	402820 289230	FOUNDRY LANE SMETHWICK TP2	3.2	N	304660

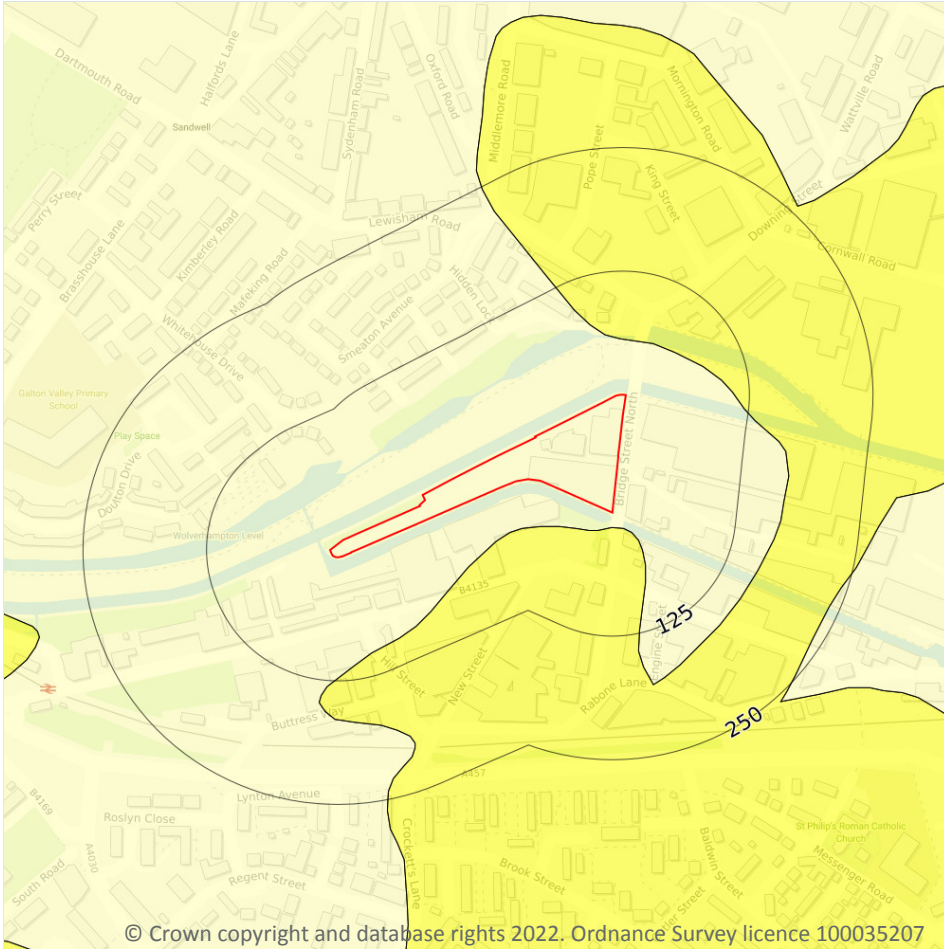


ID	Location	Grid reference	Name	Length	Confidential	Web link
12	240m E	402920 288970	RABONE LANE SMETHWICK 10	-	Y	N/A

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



— Site Outline
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m

2

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

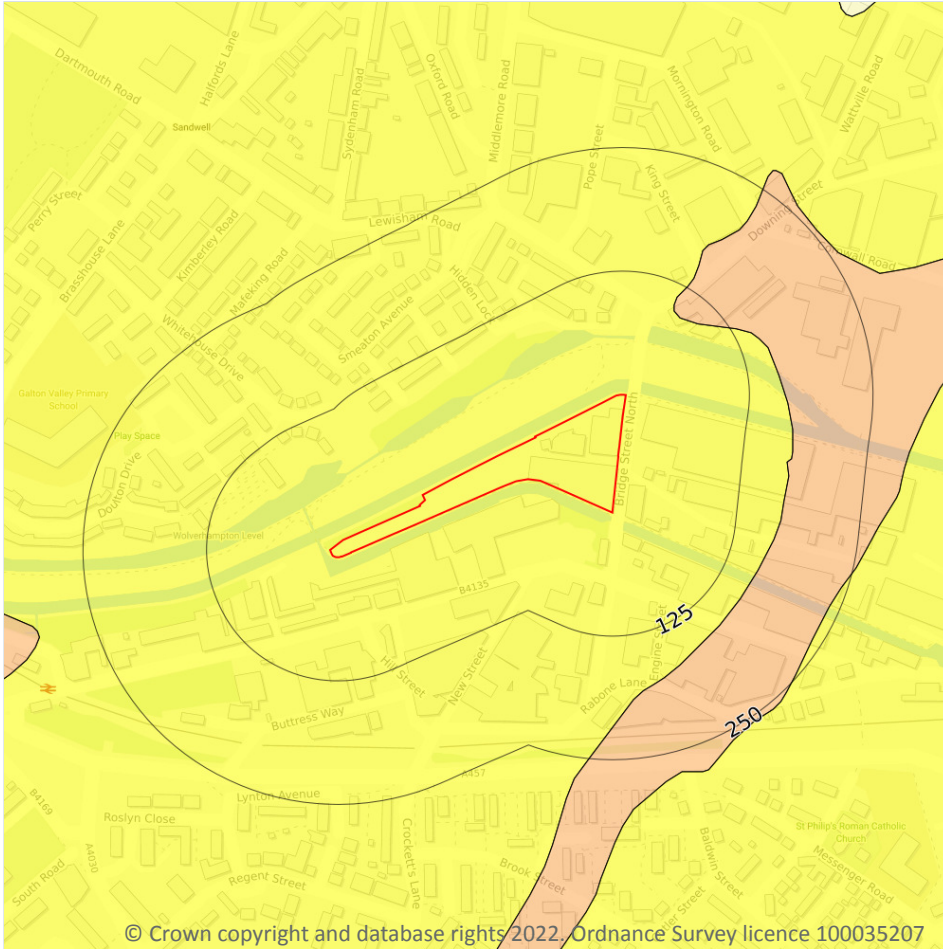
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 173**

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
15m S	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



— Site Outline
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

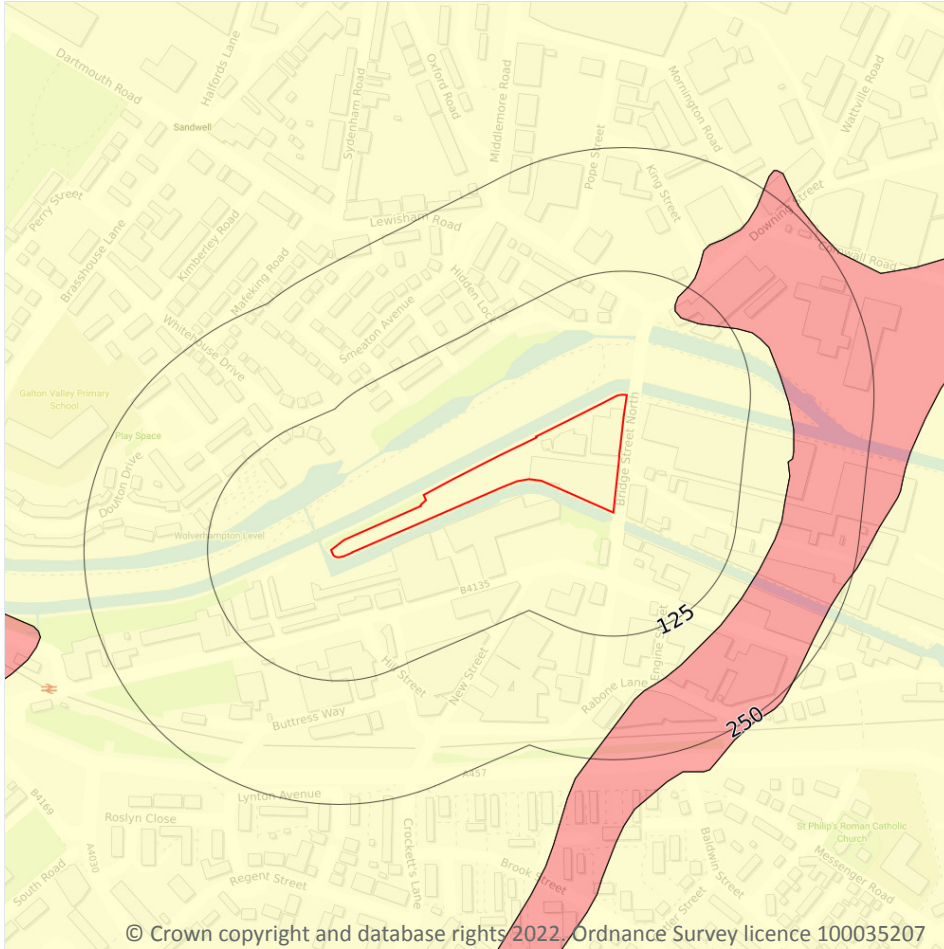
Features are displayed on the Natural ground subsidence - Running sands map on **page 174**

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



— Site Outline
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m

1

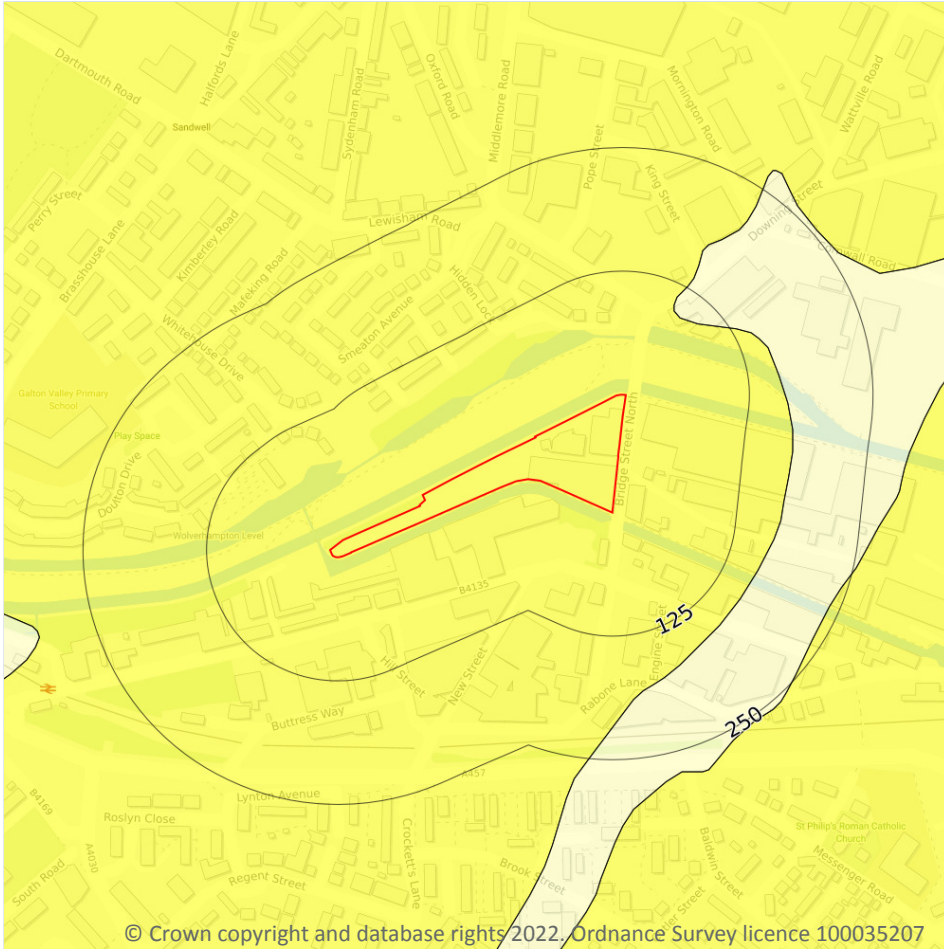
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 175**

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



— Site Outline
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m

1

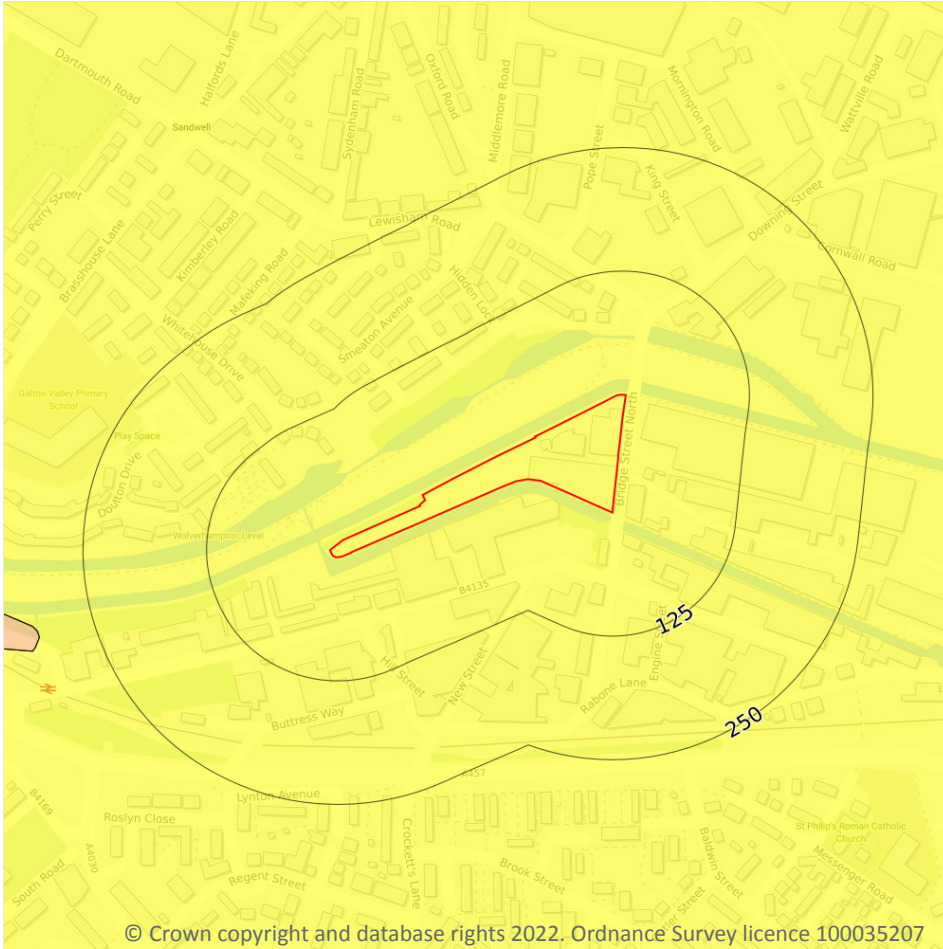
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 176**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



— Site Outline
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

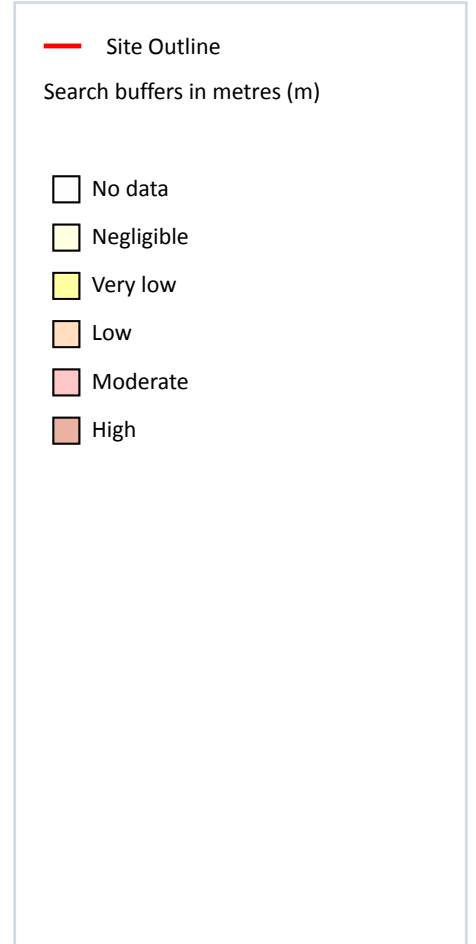
Features are displayed on the Natural ground subsidence - Landslides map on **page 177**

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 178**

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



18.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	0
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BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	63
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Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 180**

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Unspecified Wharf	1888	1:10560
A	On site	Unspecified Wharf	1889	1:10560
B	On site	Canal	1921	1:10560
B	On site	Canal	1889	1:10560
C	On site	Canal	1938	1:10560
C	On site	Canal	1903	1:10560
B	3m N	Canal	1938	1:10560
B	3m N	Canal	1888	1:10560
B	3m N	Canal	1903	1:10560
B	3m N	Canal	1903	1:10560
B	3m N	Canal	1921	1:10560
B	3m N	Canal	1938	1:10560
D	3m NW	Canal	1955	1:10560
D	3m NW	Canal	1966	1:10560
D	3m NW	Canal	1978	1:10000
D	3m NW	Canal	1988	1:10000
C	4m NW	Canal	1921	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
E	12m S	Unspecified Wharf	1888	1:10560
E	17m S	Unspecified Wharf	1889	1:10560
1	38m NW	Canal	1938	1:10560
C	41m NW	Canal	1904	1:10560
F	45m NW	Canal	1921	1:10560
F	45m NW	Canal	1903	1:10560
G	82m N	Canal	1889	1:10560
G	83m N	Pond	1888	1:10560
2	148m NW	Unspecified Ground Workings	1889	1:10560
3	170m E	Unspecified Pit	1888	1:10560
H	179m S	Cuttings	1921	1:10560
H	179m S	Cuttings	1903	1:10560
H	181m S	Cuttings	1966	1:10560
H	182m S	Cuttings	1888	1:10560
H	184m S	Cuttings	1938	1:10560
H	184m S	Cuttings	1955	1:10560
H	184m S	Cuttings	1978	1:10000
H	184m S	Cuttings	1988	1:10000
I	185m E	Pond	1903	1:10560
I	185m E	Pond	1938	1:10560
H	186m S	Cuttings	1903	1:10560
H	186m S	Cuttings	1921	1:10560
H	186m S	Cuttings	1938	1:10560
H	188m S	Cuttings	1889	1:10560
H	189m S	Cuttings	1921	1:10560
H	191m S	Cuttings	1938	1:10560
H	194m SW	Cuttings	1921	1:10560
H	194m SW	Cuttings	1903	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
H	194m S	Cuttings	1904	1:10560
H	203m SW	Cuttings	1938	1:10560
H	203m SW	Cuttings	1888	1:10560
H	207m SW	Cuttings	1903	1:10560
H	207m SW	Cuttings	1921	1:10560
H	207m SW	Cuttings	1938	1:10560
J	210m SE	Cuttings	1921	1:10560
J	210m SE	Cuttings	1903	1:10560
J	211m SE	Cuttings	1938	1:10560
J	211m SE	Cuttings	1888	1:10560
J	211m SE	Cuttings	1903	1:10560
J	211m SE	Cuttings	1921	1:10560
J	213m SE	Cuttings	1938	1:10560
J	215m SE	Cuttings	1955	1:10560
J	218m SE	Cuttings	1889	1:10560
J	221m SE	Cuttings	1921	1:10560
J	223m SE	Cuttings	1904	1:10560
K	246m W	Unspecified Heap	1889	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

12

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

Features are displayed on the Mining, ground workings and natural cavities map on **page 180**

ID	Location	Land Use	Year of mapping	Mapping scale
AR	946m NW	Colliery	1938	1:10560
AR	946m NW	Colliery	1902	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
AR	946m NW	Colliery	1888	1:10560
AR	946m NW	Colliery	1888	1:10560
AR	946m NW	Colliery	1913	1:10560
AR	946m NW	Colliery	1921	1:10560
AO	959m NW	Disused Colliery	1950	1:10560
-	965m W	Tunnel	1921	1:10560
-	969m NW	Tunnel	1913	1:10560
-	972m W	Tunnel	1950	1:10560
-	973m W	Tunnel	1938	1:10560
-	987m NW	Unspecified Disused Mine	1966	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.



18.7 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site

1

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	In addition to being located inside an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property which may supplement this information. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk .

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site

1

Areas which could be affected by past, current or future coal mining.

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

This data is sourced from the Coal Authority.



18.10 Brine areas

Records on site	0
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The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

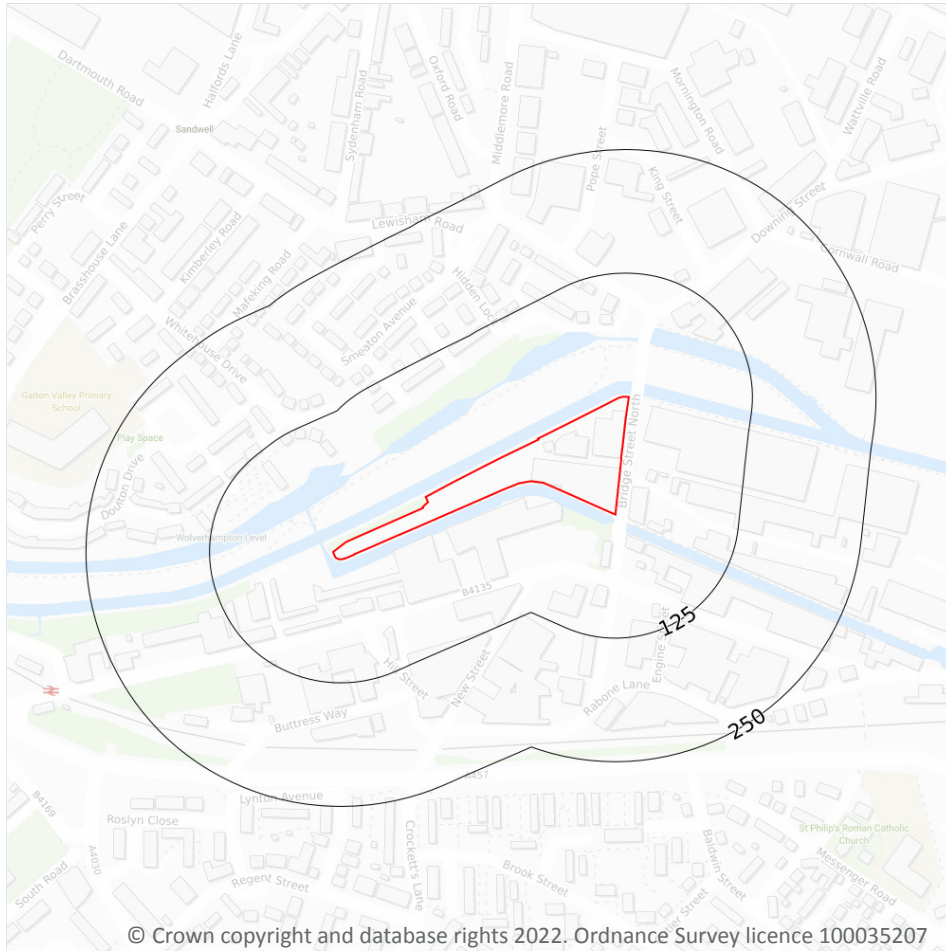
18.13 Clay mining

Records on site	0
-----------------	---

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon



— Site Outline
 Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 187**

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None**

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

5

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	20 - 40 mg/kg	15 mg/kg
15m S	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

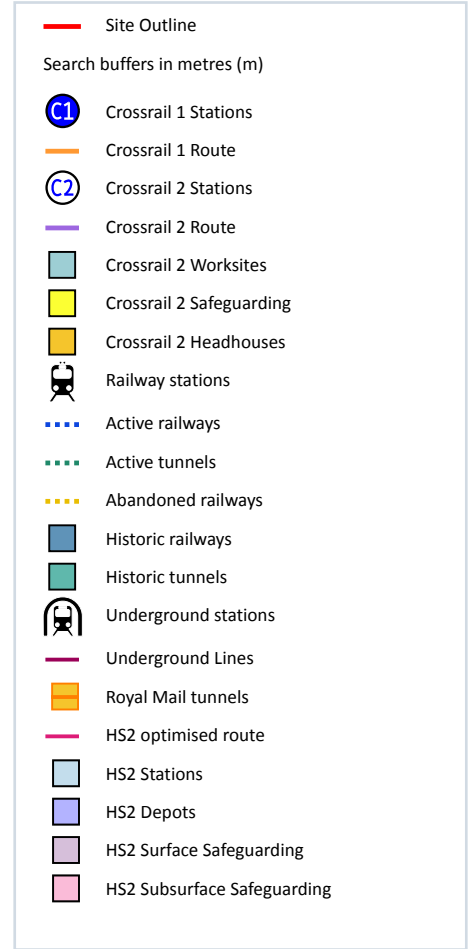
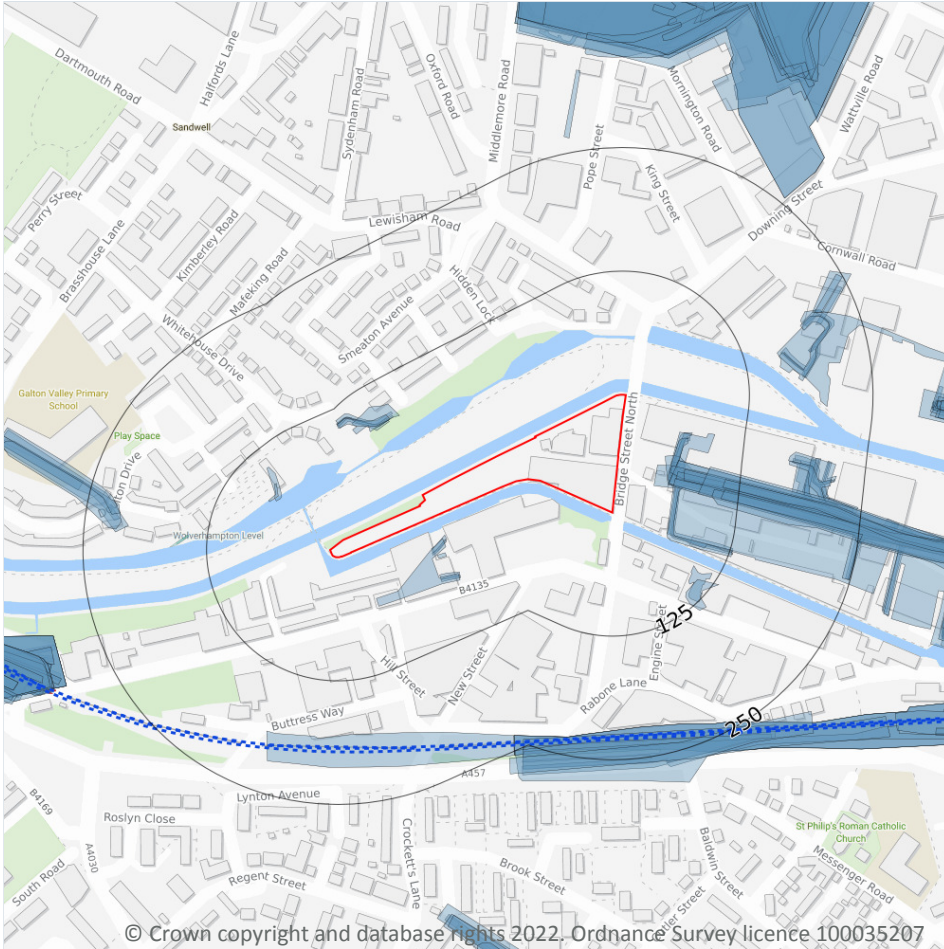
0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



21.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

59

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 189**

Location	Land Use	Year of mapping	Mapping scale
22m SE	Railway Sidings	1890	2500
24m SE	Railway Sidings	1889	10560
26m SE	Railway Sidings	1887	500
37m SE	Railway Sidings	1890	2500
39m E	Railway Sidings	1888	10560
47m E	Railway Sidings	1966	10560
52m E	Railway Sidings	1890	2500
52m E	Railway Sidings	1889	10560
53m E	Railway Sidings	1938	2500
53m E	Railway Sidings	1904	2500
54m E	Railway Sidings	1938	10560
54m E	Railway Sidings	1903	10560
54m E	Railway Sidings	1887	500
54m E	Railway Sidings	1955	10560
54m E	Railway	1889	-
54m E	Railway Sidings	1918	2500
56m SE	Railway Sidings	1890	2500



Location	Land Use	Year of mapping	Mapping scale
58m E	Railway Sidings	1956	2500
59m E	Railway Sidings	1904	10560
60m E	Railway Sidings	1956	1250
60m E	Railway Sidings	1903	10560
61m SE	Railway Sidings	1887	500
68m E	Railway Sidings	1938	10560
72m NW	Railway Sidings	1918	2500
76m NW	Railway Sidings	1890	2500
80m NW	Railway Sidings	1918	2500
82m NW	Railway Sidings	1888	10560
82m NW	Railway Sidings	1887	500
83m NW	Railway Sidings	1889	10560
84m E	Railway Sidings	1921	10560
85m NW	Railway Sidings	1890	2500
98m SE	Railway Sidings	1918	2500
98m E	Railway Sidings	1921	10560
108m E	Railway Sidings	1938	10560
108m E	Railway Sidings	1921	10560
109m SE	Railway Sidings	1921	10560
144m W	Tunnel	1956	1250
144m W	Tunnel	1956	2500
159m E	Railway Sidings	1888	10560
160m E	Railway Sidings	1889	10560
162m E	Railway Sidings	1890	2500
165m E	Railway Sidings	1887	500
174m E	Railway Sidings	1887	500
180m S	Railways	1918	-
205m E	Railway Sidings	1889	2500



Location	Land Use	Year of mapping	Mapping scale
206m W	Railway Sidings	1921	10560
207m NE	Railway Sidings	1888	10560
208m NE	Railway Sidings	1889	10560
213m W	Railway Sidings	1921	10560
216m W	Railway Sidings	1918	2500
216m W	Railway Sidings	1921	10560
219m S	Railways	1889	-
219m S	Railways	1918	-
219m S	Railways	1938	-
224m S	Railway Sidings	1956	2500
231m S	Railway Sidings	1955	10560
232m S	Railway Sidings	1956	1250
236m S	Railway Sidings	1938	2500
238m S	Railway Sidings	1966	10560

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.



21.7 Railways

Records within 250m

8

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. Features are displayed on the Railway infrastructure and projects map on **page 189**

Location	Name	Type
192m S	Not given	Multi Track
193m S	Rugby Birmingham and Stafford Line	rail
197m S	Rugby Birmingham and Stafford Line	rail
211m SW	Not given	Multi Track
216m SE	Not given	Multi Track
227m S	Not given	Multi Track
229m S	Not given	Multi Track
233m S	Rugby Birmingham and Stafford Line	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.



21.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference>.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



APPENDIX C – PHOTOGRAPHS



Photograph 1 **View west across site from eastern site boundary**



Photograph 2 **View south across north eastern area of site**



Photograph 3 **Main building on site viewed from west**



Photograph 4 **Western 1/3rd of site, viewed from south west end of site**



Photograph 5 **Clean empty barrels and IBCs in centre of site**



Photograph 6 **Inside main building, looking north east**

APPENDIX D – RISK ASSESSMENT METHODOLOGY

RISK ASSESSMENT METHODOLOGY

The Qualitative Risk Assessment presented in this report is based on the definitions outlined in CIRIA C552 (2001).

- highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution
- likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
- low likelihood: circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
- unlikely: circumstances are such that it is improbable the event would occur even in the long term.

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000).
- medium: chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem.
- mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment
- minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the probability of an event occurring and its consequences have been classified, a risk category can be assigned according to the table below.

		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low

Definitions of these risk categories are as follows together with an assessment of the further work that may be required:

- Very high: there is a high probability that severe harm could occur or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability; urgent investigation and remediation are likely to be required.
- High: harm is likely to occur. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required. Remedial works may be necessary in the short term and are likely over the long term.
- Moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that the harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term.
- Low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild.
- Very low: there is a low possibility that harm could occur and if realised the harm is unlikely to be severe.

APPENDIX E – BOREHOLE LOGS

Window Sample Borehole Log

WS101

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402554.09 , 288962.918

Client: Dunton Technologies

Plant: Premier 110

Level: 144.368 m AOD

Date: 06/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.15	144.21		Made Ground	Concrete				
				Made Ground	Dark brown to black very gravelly SAND with frequent cobbles of brick. Gravel is fine to coarse angular to rounded ash, clinker, brick, concrete and quartzite. Cobbles are angular brick.	0.7	ES		
	1.45	142.92		Made Ground	Firm red brown sandy gravelly CLAY. Gravel is fine to coarse subangular to rounded quartzite. Rare rounded cobbles of quartzite.	1.2 - 1.65	SPT	N = 3	
				Made Ground	Firm red brown sandy gravelly CLAY. Gravel is fine to coarse subangular to rounded quartzite. Rare rounded cobbles of quartzite.	1.8	D		
	2.35	142.02		Made Ground	Very soft brown slightly gravelly very sandy CLAY. Gravel is fine to coarse subrounded to rounded quartzite.	2.0 - 2.45	SPT	N = 3	
	2.75	141.62		Made Ground	Very soft brown slightly gravelly very sandy CLAY. Gravel is fine to coarse subrounded to rounded quartzite.				
				Glaciofluvial Deposits	Firm brown gravelly very sandy CLAY. Gravel is fine to coarse subrounded to rounded quartzite. Relic roots 2.75-2.9.	3.0 - 3.45	SPT	N = 27	
	4.20	140.17		Glaciofluvial Deposits	Brown very gravelly slightly clayey SAND. Gravel is fine to coarse rounded quartzite.	4.0 - 4.45	SPT	N = 14	
			Glaciofluvial Deposits	Brown very gravelly slightly clayey SAND. Gravel is fine to coarse rounded quartzite.	5.0 - 5.45	SPT	N = 14		
5.45	138.92								

1) Borehole complete at 5.45m. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 1.0m to 5.0m. 5) Borehole located by RTK GPS.

Window Sample Borehole Log

WS102

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402516.225 , 288938.383

Client: Dunton Technologies

Plant: Premier 110

Level: 144.383 m AOD

Date: 06/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.60	143.78		Made Ground	Concrete in two separate layers				
				Made Ground	Brown gravelly very clayey SAND. Gravel is fine to coarse subangular to rounded quartzite. Rare rounded cobbles of quartzite.	0.7	ES		
	1.60	142.78		Made Ground	Orange brown slightly clayey gravelly SAND. Gravel is fine to coarse subangular to rounded quartzite. Rare rounded cobbles of quartzite.	1.2 - 1.65	SPT	N = 4	
	2.25	142.13		Made Ground	Very soft light brown occasionally black speckled slightly gravelly slightly sandy CLAY. Gravel is fine to coarse subangular to rounded quartzite.	2.0 - 2.45	SPT	N = 1	
	3.00	141.38		Glaciofluvial Deposits	Firm red brown slightly sandy gravelly CLAY. Gravel is fine to coarse subangular to rounded quartzite.	3.0 - 3.45	SPT	N = 12	
	4.65	139.73		Glaciofluvial Deposits	Soft grey very gravelly sandy CLAY. Gravel is fine to coarse subrounded to rounded quartzite.	4.0 - 4.45	SPT	N = 12	
	4.80	139.58		Glaciofluvial Deposits	Brown very gravelly very clayey SAND. Gravel is fine to coarse angular to rounded quartzite.	5.0 - 5.45	SPT	N = 11	
5.45	138.93								

1) Borehole complete at 5.45m. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 1.0m to 5.0m. 5) Borehole located by RTK GPS.

Window Sample Borehole Log

WS103

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402460.254 , 288900.468

Client: Dunton Technologies

Plant: Premier 110

Level: 144.633 m AOD

Date: 06/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.17	144.46		Made Ground	Concrete				
				Made Ground	Dark brown to black very gravelly SAND with frequent whole and part bricks. Gravel is fine to coarse angular to rounded ash, clinker, brick, concrete and quartzite. Cobbles are angular brick.	0.6	ES		
				Made Ground	Red brown sandy GRAVEL of ash and clinker.	1.2 - 1.65	SPT	N = 22	
	1.90	142.73		Made Ground	Light brown slightly gravelly clayey SAND. Gravel is medium to coarse subrounded to rounded quartzite.	2.0 - 2.45	SPT	N = 4	
				Made Ground	Firm red brown slightly sandy gravelly CLAY. Gravel is fine to coarse subangular to rounded quartzite.	2.9 3.0 - 3.45	ES SPT	N = 14	
	2.65	141.98		Made Ground	Brown very gravelly slightly clayey SAND. Gravel is medium to coarse subrounded to rounded quartzite.	4.0 - 4.45	SPT	N = 32	
	3.45	141.18		Glaciofluvial Deposits					
3.85	140.78		Glaciofluvial Deposits						
						5.0 - 5.45	SPT	N = 23	
	5.45	139.18							

1) Borehole complete at 5.45m. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 1.0m to 5.0m. 5) Borehole located by RTK GPS.

Window Sample Borehole Log

WS104

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402581.373 , 288952.639

Client: Dunton Technologies

Plant: Premier 110

Level: 144.609 m AOD

Date: 06/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.27	144.34		Made Ground	Concrete	0.6	ES		
	0.50	144.11		Made Ground	Concrete cobbles				
	0.75	143.86		Made Ground	Brown, orange and white sandy GRAVEL of fine to coarse angular to rounded quartzite, brick and concrete.				
	0.80	143.81		Made Ground	Concrete slab				

1) Borehole abandoned at 0.8m due to concrete slab. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 0.5. to 1.0m. 5) Borehole located by RTK GPS.

Window Sample Borehole Log

WS105

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402636.659 , 288995.591

Client: Dunton Technologies

Plant: Premier 110

Level: 144.212 m AOD

Date: 06/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.27	143.94		Made Ground	Concrete				
				Made Ground	Dark brown to black very gravelly SAND with rare part bricks. Gravel is fine to coarse angular to rounded ash, clinker, brick, concrete and quartzite. Cobbles are angular brick.	0.6	ES		
						1.2 - 1.65	SPT	N = 2	
						2.0 - 2.45	SPT	N = 3	
						2.5	ES		
						3.0 - 3.45	SPT	N = 2	
3.30	140.91			Made Ground	Soft brown slightly sandy slightly gravelly CLAY. Gravel is medium to coarse subrounded to rounded quartzite.				
						4.0 - 4.45	SPT	N = 13	
4.25	139.96			Glaciofluvial Deposits	Firm to stiff orange brown slightly sandy very gravelly CLAY. Gravel is coarse subangular to rounded quartzite.				
4.85	139.36			Glaciofluvial Deposits	Brown to orange brown very gravelly slightly clayey SAND. Gravel is medium to coarse subrounded to rounded quartzite.				
						5.0 - 5.45	SPT	N = 27	
5.45	138.76								

1) Borehole complete at 5.45m. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 1.0m to 5.0m. 5) Borehole located by RTK GPS.

Window Sample Borehole Log

WS106

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402670.481 , 288976.397

Client: Dunton Technologies

Plant: Premier 110

Level: 143.578 m AOD

Date: 07/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.17	143.41		Made Ground	Concrete	0.5	ES		
	0.30	143.28			Brick floor				
	2.15	141.43		Made Ground	Black, brown and orange brown very gravelly very clayey SAND. Gravel is fine to coarse angular to rounded quartzite, brick, ash and clinker.	1.2 - 1.65	SPT	N = 5	
						2.0 - 2.45	SPT	N = 2	
						2.55	ES		
3.30	140.28		Glaciofluvial Deposits	Soft to firm orange brown gravelly very sandy CLAY. Gravel is medium to coarse subrounded to rounded quartzite.	2.7	D			
					3.0 - 3.45	SPT	N = 18		
5.45	138.13		Glaciofluvial Deposits	Orange brown gravelly SAND. Gravel is medium to coarse subrounded to rounded quartzite. Light grey sandstone cobble at 4.95m.	4.0 - 4.45	SPT	N = 26		
					5.0 - 5.45	SPT	N = 40		

1) Borehole complete at 5.45m. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 1.0m to 5.0m. 5) Borehole located by RTK GPS.

Window Sample Borehole Log

WS107

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402653.237 , 288932.513

Client: Dunton Technologies

Plant: Premier 110

Level: 144.417 m AOD

Date: 07/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.25	144.17		Made Ground	Concrete				
	1.00	143.42		Made Ground	Soft orange brown gravelly very sandy CLAY. Gravel is medium to coarse subrounded to rounded quartzite.	0.6	ES D		
				Made Ground	Orange brown slightly clayey very gravelly SAND. Gravel is medium to coarse subrounded to rounded quartzite.	1.2 - 1.65	SPT	N = 28	
	1.70	142.72				1.6	ES		
1.87	142.55		Glaciofluvial Deposits	Firm to stiff orange brown slightly sandy slightly gravelly CLAY. Gravel is medium to coarse subrounded to rounded quartzite.	1.8 - 1.87	SPT	N = 44		

1) Borehole abandoned at 1.87m due to SPT refusal. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 0.7m to 1.7m. 5) Borehole located by measurement from site features and levelling.

Window Sample Borehole Log

WS108

Page 1 of 1



Project Name: Bridge Street North

Project Number: 10143

Coords: 402621.425 , 288958.398

Client: Dunton Technologies

Plant: Premier 110

Level: 144.288 m AOD

Date: 07/10/2022

Logged By: TC

Install	Depth	Level	Legend	Geology	Stratum Description	Samples / Tests		Results	Water
						Depth (m)	Type		
	0.22	144.07		Made Ground	Concrete	0.5	ES	N = 1	
				Made Ground	Brown and orange slightly clayey very gravelly SAND. Gravel is fine to coarse angular to subrounded brick, concrete and quartzite.				
	1.30	142.99		Made Ground	Possible MG: Firm to stiff brown with black staining slightly sandy gravelly CLAY. Gravel is fine to coarse subrounded quartzite. Moderate hydrocarbon odour.	1.2 - 1.65	SPT		
	2.20	142.09		Made Ground	Possible MG: Stiff brown occasionally beige and white slightly sandy very gravelly CLAY. Gravel is medium to coarse subangular to rounded quartzite. Slight hydrocarbon odour.	2.0 - 2.45	SPT		
	3.07	141.22				2.9 3.0 - 3.07	ES SPT	N = 50	

1) Borehole abandoned at 3.07m due to SPT refusal. 2) No groundwater encountered. 3) Borehole was stable. 4) Gas/groundwater monitoring installation response zone 1.0m to 5.0m. 5) Borehole located by measurement from site features and levelling.

APPENDIX F – INTERIM LABORATORY RESULTS



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i2 Analytical Ltd.
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Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS
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e: reception@i2analytical.com

Preliminary Report Number : 22-89545

Project / Site name:	Bridge Street North	Samples received on:	11/10/2022
Your job number:	10143	Samples instructed on/ Analysis started on:	11/10/2022
Your order number:		Analysis completed by:	/ /
Report Issue Number:	0	Report issued on:	21/10/2022
Samples Analysed:	14 soil samples		

Signed: _____

Joanna Wawrzeczek
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Preliminary reports provided at the request of the client should be considered as incomplete and have not been through the complete quality control procedure.

Results contained in preliminary reports may be subject to change and therefore should not be used as a basis for decision making, except at the risk of the client.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.

Application of uncertainty of measurement would provide a range within which the true result lies.

An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-89545
Project / Site name: Bridge Street North

Lab Sample Number	2457445			2457446			2457447			2457448			2457449		
Sample Reference	WS101			WS102			WS103			WS103			WS104		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.70			0.70			0.60			2.90			0.60		
Date Sampled	Deviating			Deviating			Deviating			Deviating			Deviating		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	36	
Moisture Content	%	0.01	NONE	15	10	16	6.8	7.8							
Total mass of sample received	kg	0.001	NONE	0.8	0.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	

Asbestos in Soil	Type	N/A	ISO 17025	To follow	To follow	To follow	To follow	To follow
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

	%	0.005	MCERTS	0.33	0.028	0.103	0.007	0.397
Total Sulphate as SO4	%	0.005	MCERTS	0.33	0.028	0.103	0.007	0.397
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	370	55	290	9.3	1400
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.18	0.028	0.14	0.0047	0.69
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	184	27.5	144	4.7	691
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.2	0.6	4.1	0.2	1.8

Speciated PAHs

	mg/kg	0.05	MCERTS	0.2	< 0.05	0.46	< 0.05	< 0.05
Naphthalene	mg/kg	0.05	MCERTS	0.2	< 0.05	0.46	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.1	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.99	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1	< 0.05	7.9	< 0.05	1.4
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.6	< 0.05	0.37
Fluoranthene	mg/kg	0.05	MCERTS	1	< 0.05	13	< 0.05	0.28
Pyrene	mg/kg	0.05	MCERTS	0.91	< 0.05	11	< 0.05	0.45
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.88	< 0.05	9.1	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.1	< 0.05	7.3	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.94	< 0.05	7.3	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.56	< 0.05	3.9	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.71	< 0.05	7	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.42	< 0.05	2.7	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.89	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.6	< 0.05	2.7	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	8.38	< 0.80	77.5	< 0.80	2.45
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	8.38	< 0.80	77.5	< 0.80	2.45

Analytical Report Number: 22-89545
Project / Site name: Bridge Street North

Lab Sample Number	2457445	2457446	2457447	2457448	2457449
Sample Reference	WS101	WS102	WS103	WS103	WS104
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.70	0.70	0.60	2.90	0.60
Date Sampled	Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Element	Unit	Limit	MCERTS	2457445	2457446	2457447	2457448	2457449
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	150	8	34	5.5	14
Barium (aqua regia extractable)	mg/kg	1	MCERTS	380	50	170	33	65
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	3.5	0.47	3.8	0.39	0.52
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.8	0.5	0.6	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.5	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	150	12	93	11	83
Copper (aqua regia extractable)	mg/kg	1	MCERTS	360	41	690	12	100
Lead (aqua regia extractable)	mg/kg	1	MCERTS	620	30	43	14	18
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	160	17	71	9	110
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	300	22	370	18	29
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	1400	120	120	26	68

Monoaromatics & Oxygenates

Compound	Unit	Limit	MCERTS	2457445	2457446	2457447	2457448	2457449
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	Unit	Limit	MCERTS	2457445	2457446	2457447	2457448	2457449
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow

TPH-CWG - Aromatic >EC5 - EC7	Unit	Limit	MCERTS	2457445	2457446	2457447	2457448	2457449
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-89545
Project / Site name: Bridge Street North

Lab Sample Number	2457450				2457451	2457452	2457453	2457454
Sample Reference	WS105				WS105	WS106	WS106	WS107
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.60				2.50	0.50	2.55	0.60
Date Sampled	Deviating				Deviating	Deviating	Deviating	Deviating
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	37	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	10	11	23	13	13
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8	0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	To follow	To follow	To follow	To follow	To follow
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

	%	0.005	MCERTS	0.192	0.141	0.307	0.022	0.052
Total Sulphate as SO ₄	%	0.005	MCERTS	0.192	0.141	0.307	0.022	0.052
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	350	380	970	120	550
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.18	0.19	0.48	0.058	0.27
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	178	189	483	57.9	275
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.6	2.7	6.7	0.1	< 0.1

Speciated PAHs

	mg/kg	0.05	MCERTS	0.3	< 0.05	0.23	< 0.05	< 0.05
Naphthalene	mg/kg	0.05	MCERTS	0.3	< 0.05	0.23	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.35	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.29	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	5.5	0.75	0.64	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	1.3	0.21	0.2	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	7.4	1.8	1.1	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	6.1	1.6	0.95	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	3.8	1.3	0.94	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	3.2	1.1	0.8	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	3.7	1.4	0.9	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.7	0.63	0.41	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.3	1.2	0.73	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.7	0.59	0.36	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.45	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.9	0.6	0.44	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	40.7	11.2	7.72	< 0.80	< 0.80
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	40.7	11.2	7.72	< 0.80	< 0.80

Analytical Report Number: 22-89545
Project / Site name: Bridge Street North

Lab Sample Number				2457450	2457451	2457452	2457453	2457454
Sample Reference				WS105	WS105	WS106	WS106	WS107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	2.50	0.50	2.55	0.60
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	32	45	23	11	12
Barium (aqua regia extractable)	mg/kg	1	MCERTS	500	170	1900	58	200
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.5	1.2	4.9	0.69	0.81
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	4.9	12	1.9	3.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	1.7	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	64	70	21	23	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	250	340	120	31	32
Lead (aqua regia extractable)	mg/kg	1	MCERTS	470	350	77	17	20
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	70	49	63	16	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	100	170	67	42	33
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	330	470	220	36	50

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aliphatic (EC5 - EC35) EH_CU+HS_1D_AL	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow

TPH-CWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001	0.029	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	MCERTS	To follow	To follow	To follow	To follow	To follow

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 22-89545
Project / Site name: Bridge Street North

Lab Sample Number				2457455	2457456	2457457	2457458
Sample Reference				WS107	WS108	WS108	WS108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	0.50	2.50-2.80	2.90
Date Sampled				Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	30
Moisture Content	%	0.01	NONE	10	11	8.8	5.9
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	To follow	To follow	To follow	To follow
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

	%	0.005	MCERTS	0.04	0.257	0.02	0.008
Total Sulphate as SO ₄	%	0.005	MCERTS	0.04	0.257	0.02	0.008
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	280	1400	43	13
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.14	0.7	0.021	0.0065
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	141	701	21.4	6.5
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	< 0.1	1.2	5.4	2.6

Speciated PAHs

	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	2.7	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.38	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	3.5	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	2.7	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.6	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.9	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.9	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.91	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.1	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.71	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.25	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.7	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	18.4	< 0.80	< 0.80
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	18.4	< 0.80	< 0.80

Analytical Report Number: 22-89545
Project / Site name: Bridge Street North

Lab Sample Number				2457455	2457456	2457457	2457458
Sample Reference				WS107	WS108	WS108	WS108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	0.50	2.50-2.80	2.90
Date Sampled				Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	13	8.1	15
Barium (aqua regia extractable)	mg/kg	1	MCERTS	94	71	90	43
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.68	0.69	0.76	0.92
Boron (water soluble)	mg/kg	0.2	MCERTS	1.3	2.7	1.4	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	15	16	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	24	50	31	18
Lead (aqua regia extractable)	mg/kg	1	MCERTS	20	52	23	12
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	14	16	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	30	44	26	33
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	43	85	52	45

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status				
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	Units	Limit of detection	Accreditation Status				
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	To follow	To follow	< 1.0	To follow
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	To follow	To follow	< 2.0	To follow
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	To follow	To follow	29	To follow
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	To follow	To follow	150	To follow
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	To follow	To follow	180	To follow

TPH-CWG - Aromatic >EC5 - EC7	Units	Limit of detection	Accreditation Status				
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	To follow	To follow	14	To follow
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	To follow	To follow	38	To follow
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	To follow	To follow	190	To follow
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	To follow	To follow	480	To follow
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	To follow	To follow	730	To follow

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-89545
Project / Site name: Bridge Street North

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2457445	WS101	None Supplied	0.7	Brown loam and sand with gravel.
2457446	WS102	None Supplied	0.7	Brown clay and sand with gravel.
2457447	WS103	None Supplied	0.6	Brown loam and sand with gravel.
2457448	WS103	None Supplied	2.9	Brown clay and sand.
2457449	WS104	None Supplied	0.6	Brown loam and sand with gravel and stones.
2457450	WS105	None Supplied	0.6	Brown loam and sand with gravel and brick.
2457451	WS105	None Supplied	2.5	Brown loam and sand with gravel and brick.
2457452	WS106	None Supplied	0.5	Brown loam and sand with gravel and stones.
2457453	WS106	None Supplied	2.55	Brown clay and sand.
2457454	WS107	None Supplied	0.6	Brown clay and sand.
2457455	WS107	None Supplied	1.6	Brown clay and sand.
2457456	WS108	None Supplied	0.5	Brown loam and sand with gravel and brick.
2457457	WS108	None Supplied	2.50-2.80	Brown clay and sand.
2457458	WS108	None Supplied	2.9	Brown sandy clay with gravel and stones.

Analytical Report Number : 22-89545
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Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 22-89545
Project / Site name: Bridge Street North

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Analytical Report Number : 22-89545
Project / Site name: Bridge Street North

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
WS101	None Supplied	S	2457445	a	None Supplied	None Supplied	None Supplied
WS102	None Supplied	S	2457446	a	None Supplied	None Supplied	None Supplied
WS103	None Supplied	S	2457447	a	None Supplied	None Supplied	None Supplied
WS103	None Supplied	S	2457448	a	None Supplied	None Supplied	None Supplied
WS104	None Supplied	S	2457449	a	None Supplied	None Supplied	None Supplied
WS105	None Supplied	S	2457450	a	None Supplied	None Supplied	None Supplied
WS105	None Supplied	S	2457451	a	None Supplied	None Supplied	None Supplied
WS106	None Supplied	S	2457452	a	None Supplied	None Supplied	None Supplied
WS106	None Supplied	S	2457453	a	None Supplied	None Supplied	None Supplied
WS107	None Supplied	S	2457454	a	None Supplied	None Supplied	None Supplied
WS107	None Supplied	S	2457455	a	None Supplied	None Supplied	None Supplied
WS108	None Supplied	S	2457456	a	None Supplied	None Supplied	None Supplied
WS108	None Supplied	S	2457457	a	None Supplied	None Supplied	None Supplied
WS108	None Supplied	S	2457458	a	None Supplied	None Supplied	None Supplied

APPENDIX G – GAS MONITORING RESULTS

15 October 2022

Mr T Cawood
TJC Environmental Ltd
New Media House
Davidson Road
Lichfield
Staffordshire
WS14 9DZ

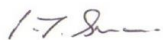
Site Name: Bridge Street North, Smethwick.
Report Number: C1020/5037
Client Ref:
Visit Date: 14/10/2022

Dear Tim

Further to your instruction to perform works at the above site, please find enclosed the factual data recorded during this visit.

We trust you find the attached satisfactory, but should you have any queries please do not hesitate to contact us.

Yours Sincerely



P J Brennan
Director

Enc.



Environmental Monitoring & Sampling Services Limited

Report Number: C1020/5037
 Customer: TJC Environmental Ltd
 Site Name: Bridge Street North, Smethwick.
 Visit Date: 14/10/2022
 Operative: Paul Brennan

Installation	Time	Water Level*	Installation Base*	Cover/pipe height above ground level*	Approx. gas sampling period	Methane (Peak)	Methane (Steady)	Methane (Peak)	Methane (Steady)	Carbon Dioxide (Peak)	Carbon Dioxide (Steady)	Oxygen (Low)	Oxygen (Steady)	Carbon Monoxide	Hydrogen Sulphide	Differential Pressure (Peak)	Differential Pressure (Steady)	Flow Rate (Peak)	Flow Rate (Steady)	Approx. flow rate sampling period	VOC (by PID 10.6ev lamp) (Peak)	VOC (by PID 10.6ev lamp) (Steady)	Atmospheric Pressure	Comments
	(hrs:min)	(m)	(m)	(m)	(sec)	(% Vol)	(% Vol)	(% LEL)	(% LEL)	(% Vol)	(% Vol)	(% Vol)	(% Vol)	(ppm)	(ppm)	(Pa)	(Pa)	(l/hr)	(l/hr)	(sec)	(ppm)	(ppm)	(mb)	
Start	09:11	-	-	-	-	-	<0.1	-	<0.1	-	<0.1	-	20.4	<10	<10	-	0	-	0.0	-	-	-	991	
Finish	11:53	-	-	-	-	-	<0.1	-	<0.1	-	<0.1	-	20.7	<10	<10	-	0	-	0.0	-	-	-	990	
WS101	10:22	Dry	4.99	GL	300	-	<0.1	-	<0.1	-	1.9	-	18.3	<10	<10	-	0	-	0.0	60	-	-	990	
WS102	10:02	4.35	5.04	GL	300	-	<0.1	-	<0.1	-	7.3	-	10.7	<10	<10	-	0	-	0.0	60	-	-	991	
WS103	09:45	2.98	4.99	GL	300	-	<0.1	-	<0.1	-	9.6	-	4.8	<10	<10	-	0	-	0.0	60	-	-	991	
WS104	10:42	Dry	0.73	GL	300	-	<0.1	-	<0.1	-	1.9	14.7	15.1	<10	<10	-	0	-	0.0	60	-	-	990	
WS105	11:33	Dry	5.03	GL	300	-	<0.1	-	<0.1	3.8	3.6	16.5	16.7	<10	<10	-	0	-	0.0	60	-	-	991	
WS106	11:49	4.97	5.06	GL	300	-	<0.1	-	<0.1	-	5.6	-	10.3	<10	<10	-	0	-	0.0	60	-	-	991	
WS107	11:16	1.73	1.74	GL	300	-	<0.1	-	<0.1	-	1.2	-	16.2	<10	<10	-	0	-	0.0	60	-	-	990	
WS108	10:59	Dry	2.91	GL	300	1.5	1.0	36.2	24.9	5.6	5.9	6.7	7.4	<10	<10	-	0	-	0.0	60	-	-	990	

Instrument	Manufacturer	Model	S/N	Calibration Date
Infra Red Gas Analyser	Gas Data	GFM430	10167	23/02/2022
Dipmeter	Geotechnical Instruments	DM2.1-60	79964	
Interface Meter	Not utilised	N/A	N/A	
Photoionisation Detector.	Not Utilised	N/A	N/A	N/A

These works have been undertaken in accordance with the following monitoring & sampling methodologies:
 Method Statement for Ground Gas Determinations IRGA & PID v3. Peak ground gas or low oxygen concentrations are reported only when different to steady readings.
 Method Statement for Groundwater and Product Level Measurement v3.
 * = Water and base level measurements dipped to top of cover or pipe if no cover.
 PID concentrations determined over 180 seconds.

Weather Conditions:				Site Conditions:	
Temperature (°C)	12-14	Precipitation:	Dry	Ground Conditions:	Damp becoming dry
Wind Conditions	Gentle breeze	Cloud Cover:	Cloudy		



APPENDIX H – SPT N₆₀ CALCULATIONS

SPT N correction to SPT N₆₀ using energy and rod length corrections in accordance with BS EN ISO 22476-3:2005

Client:	Dunton Technologies
Project:	Bridge Street North
Job No.:	10143
Contractor	Dynamic Sampling



Rig Reference	1	2	3	4	5
Rig Description	Window				
SPT Hammer Energy Ratio (Em)	0.71				

Borehole Reference	Depth (mbgl)	Strata	Rig Reference	Energy Ratio (E _m)	Energy Ratio Correction (C _E)	Rod length Correction factor (C _R)	N Value	Corrected N Value N ₆₀
WS101	1.2	Made Ground	1	0.71	1.18	0.75	3	2.7
WS101	2.0	Made Ground	1	0.71	1.18	0.75	3	2.7
WS101	3.0	GFD - Cohesive	1	0.71	1.18	0.75	27	24.0
WS101	4.0	GFD - Granular	1	0.71	1.18	0.85	14	14.1
WS101	5.0	GFD - Granular	1	0.71	1.18	0.85	14	14.1
WS102	1.2	Made Ground	1	0.71	1.18	0.75	4	3.6
WS102	2.0	Made Ground	1	0.71	1.18	0.75	1	0.9
WS102	3.0	GFD - Cohesive	1	0.71	1.18	0.75	12	10.7
WS102	4.0	GFD - Cohesive	1	0.71	1.18	0.85	12	12.1
WS102	5.0	GFD - Granular	1	0.71	1.18	0.85	11	11.1
WS103	1.2	Made Ground	1	0.71	1.18	0.75	22	19.5
WS103	2.0	Made Ground	1	0.71	1.18	0.75	4	3.6
WS103	3.0	Made Ground	1	0.71	1.18	0.75	14	12.4
WS103	4.0	GFD - Granular	1	0.71	1.18	0.85	32	32.2
WS103	5.0	GFD - Granular	1	0.71	1.18	0.85	23	23.1
WS105	1.2	Made Ground	1	0.71	1.18	0.75	2	1.8
WS105	2.0	Made Ground	1	0.71	1.18	0.75	3	2.7
WS105	3.0	Made Ground	1	0.71	1.18	0.75	2	1.8
WS105	4.0	GFD - Cohesive	1	0.71	1.18	0.85	13	13.1
WS105	5.0	GFD - Granular	1	0.71	1.18	0.85	27	27.2
WS106	1.2	Made Ground	1	0.71	1.18	0.75	5	4.4
WS106	2.0	GFD - Cohesive	1	0.71	1.18	0.75	2	1.8
WS106	3.0	GFD - Granular	1	0.71	1.18	0.75	18	16.0
WS106	4.0	GFD - Granular	1	0.71	1.18	0.85	26	26.2
WS106	5.0	GFD - Granular	1	0.71	1.18	0.85	40	40.2
WS107	1.2	Made Ground	1	0.71	1.18	0.75	28	24.9
WS107	1.8	GFD - Cohesive	1	0.71	1.18	0.75	44	39.1
WS108	1.2	Made Ground	1	0.71	1.18	0.75	1	0.9
WS108	2.0	Made Ground	1	0.71	1.18	0.75	29	25.7
WS108	3.0	Made Ground	1	0.71	1.18	0.75	50	44.4

APPENDIX I – SPT HAMMER CALIBRATION CERTIFICATE



Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Dynamic Sampling Uk Ltd
Unit 8 Victory Park
Victory Road
Derby
DE24 8ZF

Hammer Ref: 110.45
Test Date: 08/07/2022
Report Date: 08/07/2022
File Name: 110.45.spt
Test Operator: B.HUNTER

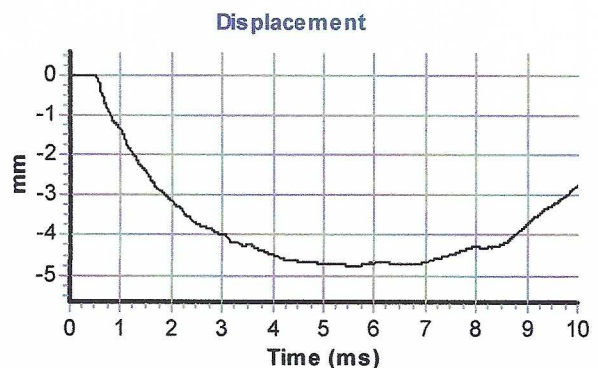
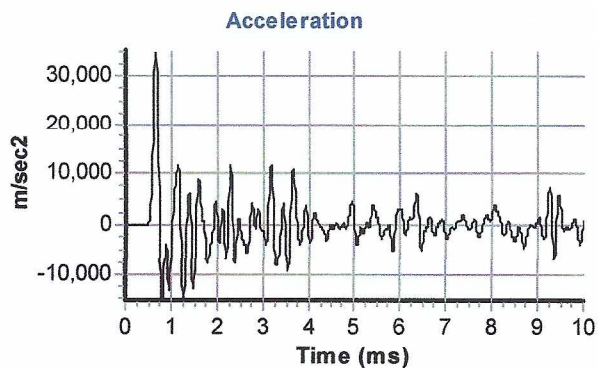
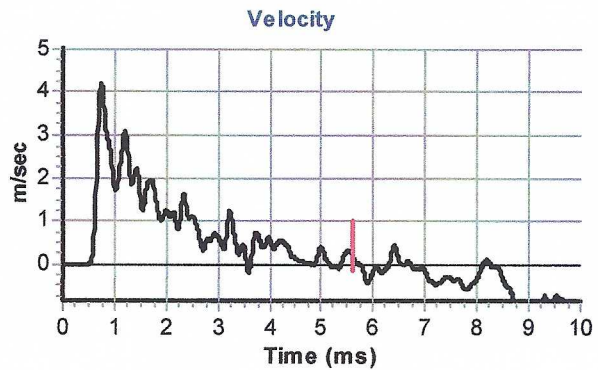
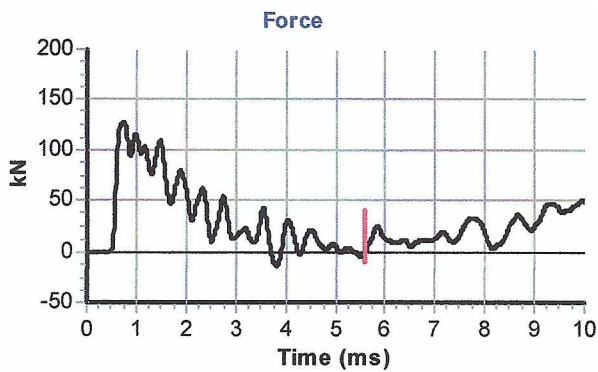
Instrumented Rod Data

Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.5
Assumed Modulus E_a (GPa): 208
Accelerometer No.1: 62901
Accelerometer No.2: 62902

Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
String Length L (m): 10.0

Comments / Location



Calculations

Area of Rod A (mm^2): 970
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 338

Energy Ratio E_r (%): **71**

Signed: B.Hunter
Title: Operations Manager

The recommended calibration interval is 12 months